# HYGEIA
## THE HEALTH MAGAZINE

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*ALL parents will want to read the new* HYGEIA *series on "The Laws of Discipline," which will begin in the August issue. Three articles on this important topic have been prepared by Dr. Smiley Blanton, director of the Minneapolis Child Guidance Clinic, and Margaret Gray Blanton, child psychologist. The titles of these articles are:*

1. *The Need of Discipline.*
2. *Discipline Through Reward.*
3. *Discipline Through Punishment.*

*The articles are designed to help parents teach their children how to adjust themselves successfully to an ever changing environment.*

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*Contributions to* HYGEIA *are considered, and, if accepted, paid for. Stamps for the return of unaccepted manuscripts should be enclosed. All communications should be addressed to* HYGEIA, *535 North Dearborn Street, Chicago, Illinois.*


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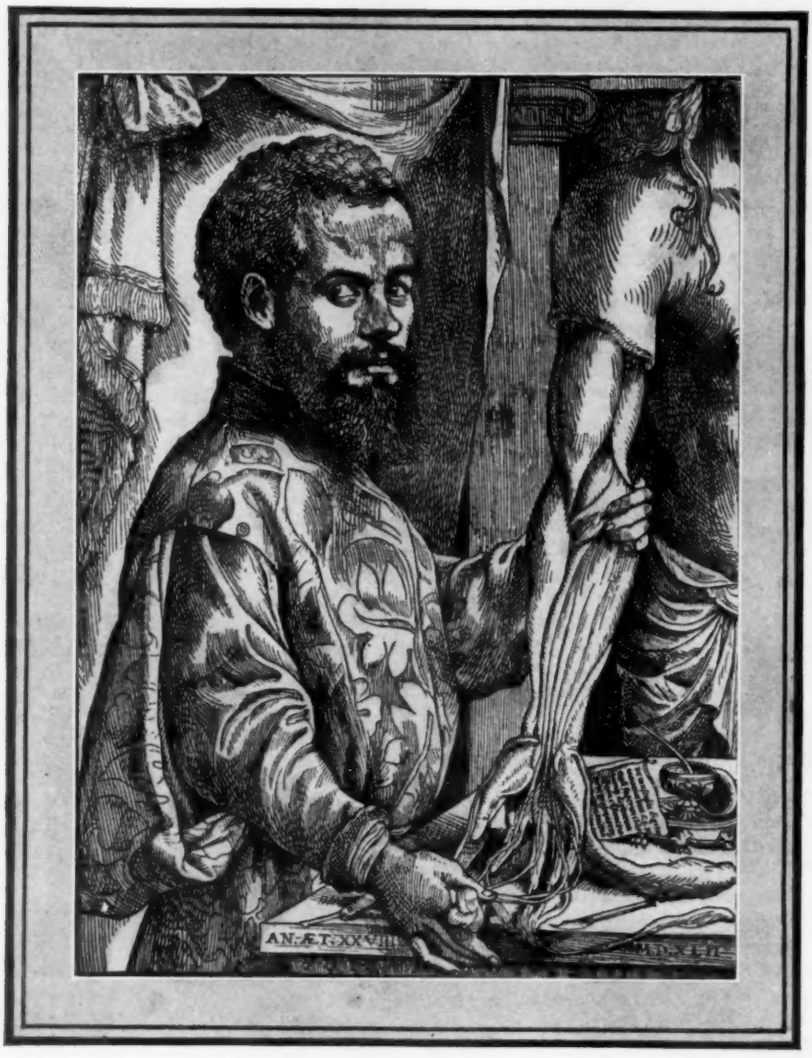


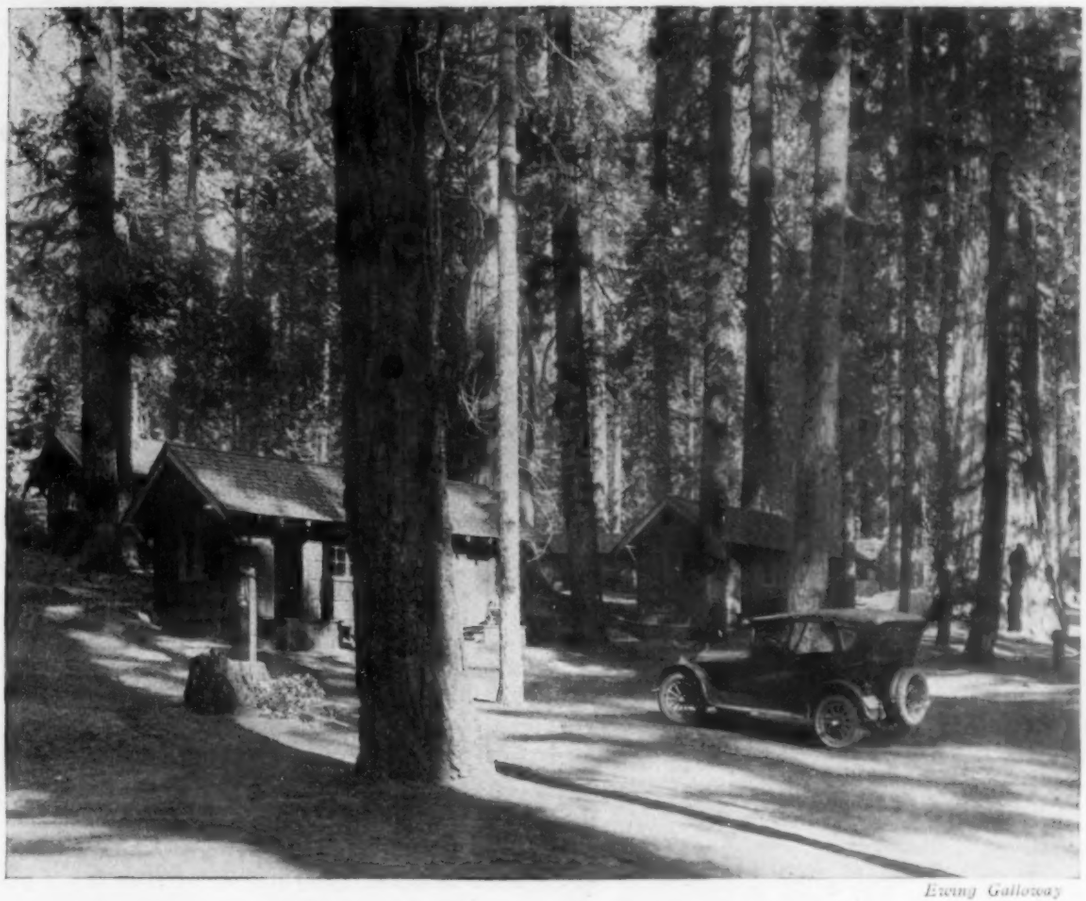

# HEROES OF MEDICINE

## IV. Vesalius

*ANDREAS VESALIUS, 1514-1564, was born in Brussels of a family of physicians. He studied in France, and, though his work shows the influence of Galen, he has been called the reformer of anatomy. Chief of his reforms was his custom of dissecting with his own hand during his classes and lectures. Thus he is shown in the familiar picture taken from his great work the Fabrica, or On the Fabric of the Human Body. This book, an anatomical masterpiece, has been called the first great positive achievement of science in modern times.*

*The character of Vesalius was threefold; he was not only naturalist, but artist and humanist as well. He was educated along humanist lines, and he lived during a period when the attitude toward the human body had been exalted by contact with Renaissance art. He had, however, a native genius for dissection, and he possessed a mind that saw the body as a whole and considered anatomy as living anatomy.*

*Vesalius was the first modern anatomist to base his study firmly on observation. He wrote two books on anatomy, illustrated with many valuable drawings.*



Ewing Galloway

*A California tourist camp, sanitary and restful.*

# Health Hints *for* Motor Tourists

*By* HERMAN G. MORGAN

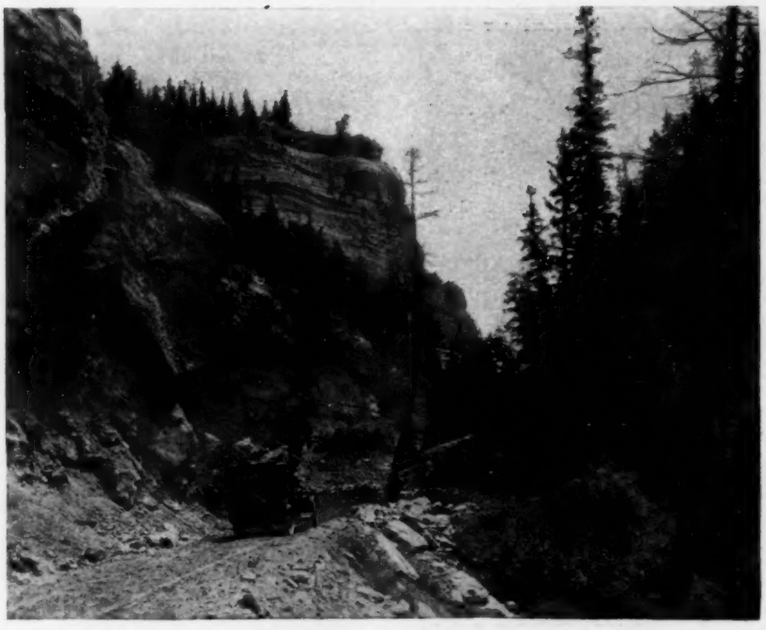
EACH year an increasing percentage of the nation's population uses the motor car for touring. The trip may be no more than a few hours' ride into a rural district or it may be a long tour covering various sections of the country. The passengers in this group are made up of every class from that of the motor tramp to the entire family group. All of these have one purpose in mind, that of seeing the country and enjoying the thrills that go with motor touring and outdoor life.

When not on tour, this large rolling population lives under conditions somewhat different from those met when traveling. In the home, hygienic, sanitary and public health measures are regularly carried out, both by the individual and by the health department. On the motor trip the situation changes. The entire responsibility of health protection is assumed by the tourist; therefore, the traveler should be familiar with every precautionary measure.

If a tabulation were made of the various ills that occur among tourists, stomach and intestinal disorders would unquestionably head the list. In severity they would rank all the way from a slight stomach derangement to typhoid fever. It is therefore essential that the motor tourist pay particular attention to the quantity and quality of the food that makes up the daily dietary.

Plain, nourishing food taken at regular mealtime should be the rule. An appetite whetted to keenness by outdoor life and change of surroundings should not lead one to overindulge in food and drink. The tourist should learn to distinguish by a hasty sanitary inspection the right kind of an establishment from which to purchase food, whether he means to cook it himself or to eat it already prepared. Food protected from dust, dirt and flies, and prepared by clean hands is health insurance for the motorist. He should see that he gets it.

A marked tendency exists to place too much confidence in the hand that feeds one. A person should always remember that much sickness is a hand to mouth affair. For health's sake, the tourist should take plenty of fluid, preferably water, if it is pure. It is always good policy to know from what source the water comes. One should not drink from every bucket or container that may be found in small roadside establishments. It is far better to quench a thirst with a bottle of one of the various concoctions sold under trade names than to drink questionable water. Several states are protecting motor tourists by marking safe wells along the main highways.



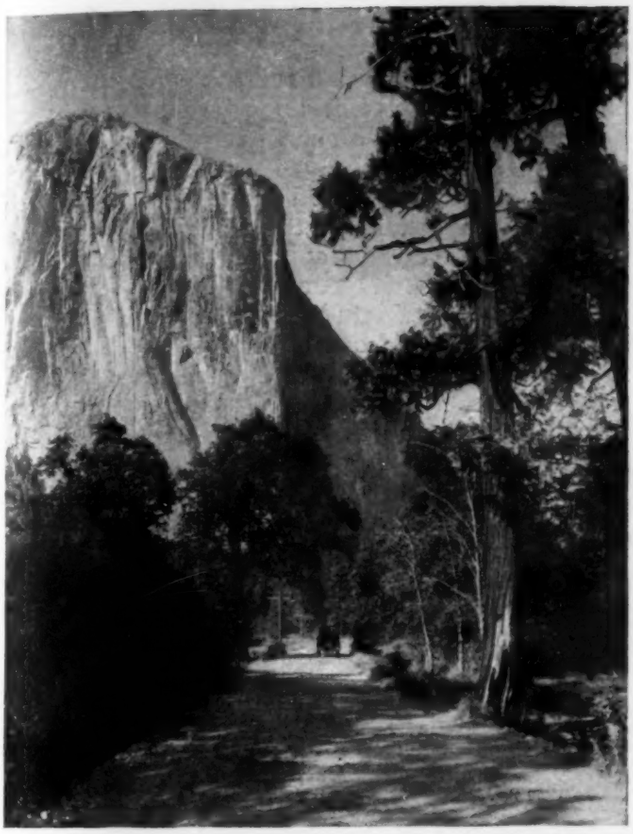
*These cross country tourists are headed up the canyon.*

To get pure milk is difficult. Milk is a fine food but is easily contaminated. If milk has been pasteurized an important step has been taken in making it safe. Raw milk should be boiled before using. The milk problem is one of the essential reasons why babies and small children should not be members of the motor touring army. From a health standpoint they are better off at home.

Certain regulations for tourist camps are important from the standpoint of health protection. The first requirement is a sanitary method of sewage disposal. Sewage left exposed to flies readily forms the medium for the transmission of many diseases, particularly dysentery and typhoid fever. Every tourist camp should be equipped with a septic tank if a sewer connection is not available. This sanitary requirement has been recognized by the majority of cities and towns in which

*Photos by Ewing Galloway*

*Ferrying across lakes and rivers is always an interesting, if leisurely, pursuit. This is the Penobscot River at Bucksport, Maine.*



*A motor bus full of tourists is approaching El Capitan, the mountain of solid granite in Yosemite National Park.*

camp sites are found, although there still remains too large a number that are using the old style vault and cesspool. Such places are unsafe for the tourist and should be given a wide berth. It is far better to choose a roadside site and establish a camp of one's own than to take a chance of contracting an infection in one of these insanitary spots.

Every well regulated tourist camp has a water supply that is pure. The water should come from the city mains or from a drilled well. Water from an open well is not always safe. The water supply for such sites should be examined at least once a month during the summer as a safeguard against contamination. Regulations pertaining to garbage and refuse disposal are rigidly enforced in well regulated camps. The tourist that believes in the protection of his own health and that of the campers who follow will adhere closely to the regulations.

Under the most careful sanitary supervision in the disposal of garbage and refuse, there will still be plenty of flies. These are the intermediary hosts that carry infection from its source to the food of the tourist, if eating tents are not protected. It is a simple procedure to carry a supply of mosquito netting to drape over the table or tent used for the serving of food. There may be a sufficient number of germs on the feet of one fly to spoil the entire motor trip. The wise tourist will neither eat with the flies nor leave food scraps lying about to feed them after he has gone on his way.

In order thoroughly to enjoy a motor tour during the day a comfortable night's rest is necessary. Many rooms are available in roadside homes or in hotels if the traveler chooses to stop in a city or small village. The selection of the place for the night's lodging, perhaps with breakfast the following morning, should be made with the same regard for sanitary surroundings as the choice of a place to camp.

For those who would sleep out, comfortable sleeping equipment should be a part of the baggage. The air at night becomes cold and penetrating, and extra blankets will be needed before morning. If one neglects this measure, when he arises in the morning the voice may be husky and the nose stuffy. A cold is a disagreeable companion on a motor trip.

A part of the bolt of mosquito netting left from screening the table and eating tent against flies may be used to spread over the sleeping cot at night. This will guard against disturbance of the night's rest by the high tenor solos of mosquitoes, and, if they are of the

*Photos by Ewing Galloway*

*The byways are often most attractive, as is this famous avenue of birches in the White Mountains of New Hampshire.*

species that carry their hypodermics loaded with malaria germs, will prevent one's blood stream from receiving the mosquito's cargo.

With all the preventive measures that may be taken for the health protection of the motor tourist, one reads in health department statistics the results of the failure of some vacationists and motor tourists to become vaccinated against typhoid fever before they start on the trip. If a person stays at home, it is an excellent thing to be vaccinated against typhoid fever at least every five years. But to take the risk of contracting this disease when one is eating food and taking milk and water from unknown sources is almost as foolish as to start on the journey with two cylinders of the motor missing.

When one is getting vaccinated against typhoid one should also check up on protection against smallpox. The inexcusable prevalence of this malady throughout the country is a national disgrace. It is a disease one would not care to contract while on a pleasure trip.

Every tourist should have a first aid outfit in the car. A package of sterile cotton, some 2 inch bandages, a small roll of adhesive, a pair each of small scissors and tissue forceps are needed. In my opinion a pair of small artery clamps may be wisely included. One may carry them for years and never need them, but if they are available at the time some one has an artery severed and spurting, they are a convenient first aid instrument. In the first aid pocket should be included a small bottle of antiseptic solution and a soothing ointment for use in case of chapping and sunburn.

Throughout the entire journey the motor tourist should carefully observe all traffic regulations, remembering that the trip is one for health and pleasure and not a road race or endurance contest. The mistake is frequently made of trying to travel too many miles within a certain time. An occasional stop for a few minutes' relaxation will rest the driver and will prevent many accidents.

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# Steering Children Straight

*By Bird T. Baldwin*

THE problem of the child that steals is one that may come to any home. Some children steal for the sake of the adventure; some steal because they have not as much spending money as their playmates. In every such problem it is necessary to find the cause. Punishment does little or no good.

The real difficulty lies in teaching children the value of money. The only way they can learn this is to have an opportunity to earn money and to spend small amounts under supervision. The amount children are allowed to spend should be limited so that they must choose between a number of desirable things. As the child grows older the amount may be increased, and he should be required to purchase certain small necessities for himself. One interesting and valuable thing to do is to ask the children to plan an order in a general mail order catalogue and see how they would spend $10, $25 or $100. The children will enjoy this and at the same time will be getting an idea of values.

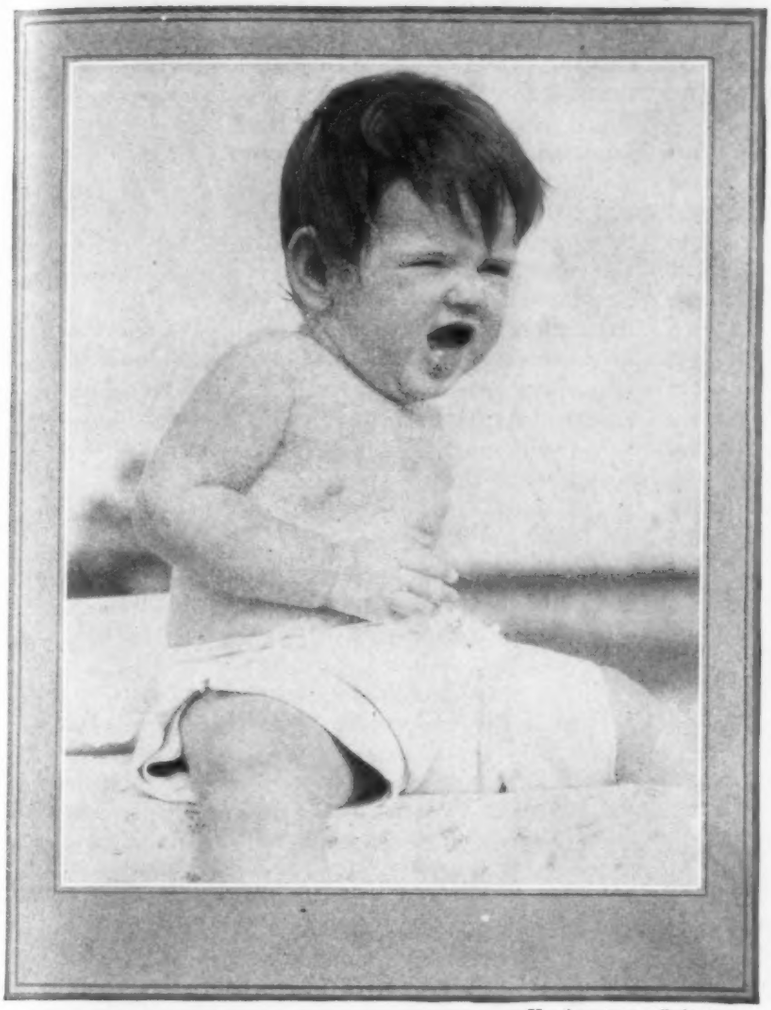
In giving children allowances, wealthy parents should consider poorer companions, so that the standard cost of parties and treats will not be above what the average child can spend. Trying to keep up with wealthy children has driven many to stealing.

Children that have earned money will realize that it is not easy to get and must be spent wisely. They should be taught the satisfaction that may be had from investing in education and travel, and encouraged to save their earnings for some particularly desirable thing, rather than to scatter it on trifles.

By making a companion of the child, approaching him frankly and taking him into one's confidence, one may win his confidence in return. He should be made to recognize the rights of others, and gradually he will develop habits of justice and fair play. Of course, example is important, and parents should be very careful always to be open and honest in their own use of money.

In the case of children who have been led into wrong-doing by bad associates, the parents should try to provide better playmates, or, if this is not possible, to spend more time themselves with their children. The watch dog attitude of constantly keeping an eye on the child is bad. Usually a child will try to live up to what is expected of him. If the parent shows by his attitude that he expects the child to do wrong, the child will find some way of doing it, no matter how carefully he is watched. If the parent shows him that he is trusted the child will try to be worthy of trust.

Children like to look at both sides of a question and settle it in the way that seems right to them. They should be shown the advantages and disadvantages, with emphasis on the disadvantages, of bad habits. When they have been brought to decide themselves that a thing is bad, they will be ready to give it up, which they will not do as a result of punishment.



H. Armstrong Roberts

# *Some Suggestions for* Keeping Cool *in* Hot Weather

*By* GRETA GRAY

ALTHOUGH every one knows that the baby's second summer is a dangerous period, not every one knows that the summer time is dangerous for younger babies, for older children and for grown people. Hot summer weather is bad for every one, but it is especially harmful to children and to babies.

### *Heat Has Two Bad Effects*

Summer is dangerous in two ways: first, because of the effect of heat on our surroundings and, second, because of the effect of heat on ourselves. In warm weather mosquitoes and flies flourish. In some places mosquitoes carry disease germs and by their bites infect many persons. Flies lighting on contaminated material pick up disease germs, which they later deposit on our food. When we eat this food, if it has not been cooked to kill the germs, we take them into our systems. In this way diarrhea, typhoid fever and other diseases are often contracted.

We eat more uncooked food in summer than in winter. Bacteria are more active in warm than in cold weather, so food spoils more quickly, and tainted food sometimes causes sickness. Children are more likely to suffer from these bad effects of hot weather than grown people, because they have less resistance than adults to most of the diseases caused by germs, and because their digestive powers are not so great as those of grown people.

Babies in their second summer are as a rule no longer nursed or fed carefully prepared food from the bottle. They are beginning to eat new foods, and these are not only hard for them to digest but are often contaminated. It pays to be very careful in feeding babies during their second summer. It is necessary to pasteurize their milk and to cook for them all vegetables and fruits, except such a fruit as the orange, which is protected by its thick skin. Not only for the baby's sake but to protect the health of all the family, flies should be kept away from food and food should be kept cool.

### *Digestive Disturbances Common*

Late in the summer children who have been weakened by weeks of hot weather are more likely to have digestive disturbances than when they were stronger, and if their food is not in the best condition or if it carries disease germs, many fall sick and some die of diarrhea, enteritis or some other disease of the digestive system. The weakening effect of hot weather is a very important factor in causing these illnesses and deaths. When in early summer the first hot

days come, many babies that are not strong fall sick; some die after an illness of a few hours or a day or two. These deaths are caused by heat prostration, heat stroke, heart disease or convulsions, and are due to the fact that the babies cannot adjust themselves to the heat.

We can do a great deal to keep ourselves and the children cool in hot weather. Light, loose clothing without belts, tight armholes or tight sleeves lets the air reach the skin and helps to keep us cool. Such clothing also allows ease of motion. Babies and children need to wear little. A low-necked, short-sleeved, loose-kneed bloomer garment of light weight material and light in color is ideal for hot weather wear.

We should not take unnecessary exercise on hot days, and we should be quiet during the hottest part of the day. Labor-saving devices are worth more in summer than at any other season. Quiet games and other amusements should be planned for the children for hot weather. Perhaps the children can be taught to sleep during the early afternoon and then be permitted to stay up in the cooler evening. A noon day siesta in hot weather is good for grown persons as well as for children.

Sponge baths in the morning, at night or during the day are cooling. The water should be lukewarm for babies; others may have it cold if they like it so. If there is a clean shallow pool in a shady spot, children may be allowed to play in it. A laundry tub half filled with water and set under a tree makes a good play place for a hot day.

### *Foods for Hot Days*

Since meat, cheese and eggs stimulate heat production in the body, it is wise to have these foods only once a day on hot days. Cold food, well chilled salads and fruit, and frozen dishes are more pleasing and less heating than hot, steaming food. Picnics are useful if no hot food is prepared and no dishes are to be washed later.

Changing the air next the skin helps to carry away body heat, so if there is a breeze it is usually more comfortable outdoors in the shade than in the house. When there is no stir of air, a ride furnishes one way of getting the good effects of a breeze.

Although light and sunshine are good for us, the direct rays of the sun are harmful in hot weather, and we should stay in the shade as much as possible when out of doors, and should wear large shade hats or carry a parasol when it is necessary to be in the sun for a long time. Some children's hospitals have rooms that are artificially cooled in hot weather. We cannot have regular cooling plants for our houses similar to those used in hospitals, but there are several things that can be done to keep them cool. We can keep just as little fire going as is possible. When gas or electricity is not available, we can use kerosene cook stoves. A summer kitchen or a laundry separate from the house or a screened porch may in some cases be used for any cooking that requires much fire, such as baking or canning. If most of the windows are kept closed and darkened during the day, much heat will be kept out of the house. At night or in the early evening all the windows may be opened to let into the house any breeze that is stirring.

### *Should Set Fan on Floor*

An electric fan makes an artificial breeze and is a great aid in making a room pleasant. It does more good when placed on the floor than when in any other position.

Cold water absorbs heat, so sprinkling the house helps to cool it. As water evaporates it takes up a great deal of heat. Whenever the air is dry, we can take advantage of the evaporation of water and sprinkle not only the house but the lawn, the walks and the street as well. Wet sheets hung inside where a draught or the air from an electric fan reaches them cool the air several degrees. Whenever the air is muggy or humid, these methods are not successful, for evaporation takes place very slowly in damp, moist air.

The basement of a house is often coolest, and if the basement is well ventilated, light and clean, children should be allowed to play there on hot days. On hot days or nights such a basement may be used as a sleeping room also.

All these measures are not needed every day of the summer, but many of them may well be made a part of the daily summer routine. Others may be used only on the worst days when the baby seems to be drooping or is fretful or when other members of the family begin to show the effects of heat. It is worth while to take pains to keep cool, not only for the sake of comfort but for the sake of health as well.

Talking and fretting about the weather do not help, so we may add as a last rule for keeping cool in hot weather: Keep cool about it.

# A Child Is to Be Born

## *III. Exercise and Bathing for the Expectant Mother*

*By*
*J. P. GREENHILL*

*If there is a small child in the family, the expectant mother should not lift or carry it any more than is absolutely necessary. Thus backaches will be avoided.*

## EXERCISE

A WOMAN who expects a baby should take a certain amount of exercise daily, unless there are special reasons for not doing so. The benefits derived from exercise are improvement in the circulation of the blood, better appetite and digestion of food, better elimination of waste products of the body, more restful sleep and an opportunity to divert the mind from household responsibilities.

The amount and kind of exercise for an expectant mother depend to a certain extent on the individual woman. One thing is certain, however: the expectant mother should never exercise to the point of fatigue. She should stop as soon as she begins to feel tired. The nearer the day of confinement, the more readily does fatigue set in. Women who are accustomed to participate in strenuous sports can tolerate more than women who lead an indoor and sedentary life. Women who have many household duties to perform do not need as much exercise as women who do not have such duties.

### *Walking*

Practically the only active exercise available for expectant mothers is walking, and this should be outdoors, except during very inclement weather. For this purpose, broad, low-heeled shoes with wide toes should be used, because high-heeled shoes may cause backache and missteps. It is best to walk during the hours of sunlight, because the sun's rays are beneficial. However, during the summer months, the expectant mother should be cautious about taking a walk in the hot sun. While walking, it is advisable to proceed leisurely and to avoid crowds. Long tramps are too strenuous for most women. About two or three miles is a fair average daily walk.

### *Violent Exercise and Travel*

If even a short walk produces a tired feeling, the expectant mother should not walk much, but should rest in the open air. While resting, the mind may be occupied with reading, knitting or chatting. At least two hours each day should be spent outdoors. This time is best divided into two periods, one in the morning and the other in the afternoon. When the weather is unusually bad, a walk should be taken at home, either on an open porch or in a room with all the windows wide open. In winter, warm clothes should be worn for this, just as if one were in the street. It is needless to emphasize that the home should be well aired at all times, night as well as day. It is advisable to take five or six deep breaths night and morning before an open window. Likewise while walk-

ing outdoors, deep breathing should be practiced for short periods each day.

Violent exercise in any form should be avoided. This includes running, tennis, golf, swimming, cycling, skating and horseback riding. Dancing should be indulged in only occasionally and for very short periods of time; but the prospective mother should never dance in a crowded room. Driving an automobile should be given up, and motoring should be restricted as much as possible. If automobile rides are taken, rough roads should be avoided.

It is inadvisable to take long train rides or steamer voyages. Certainly women who have lost babies before birth on previous occasions should avoid traveling whenever possible and should undertake a journey only after consultation with a physician. The most dangerous period of travel is that time in each month when menstruation would ordinarily occur. At this time more than any other, overexertion of any kind may produce premature birth of the baby. When railroad travel is imperative, the smoothest road and the most comfortable accommodations should be chosen. One should recline as much as is convenient.

### *Housework*

A certain amount of housework is not only permissible but is desirable. Here also the expectant mother should never proceed to the point of fatigue. Only light work should be done. Going up and down stairs quickly or often may be harmful, as may be lifting or moving heavy articles. Sewing on a machine that requires the use of the feet should not be done. If there is a young child at home, the expectant mother should not lift and carry him around any more than is absolutely necessary. By observing these precautions many backaches and much fatigue will be avoided.

When an expectant mother has much housework to do and finds that the additional walking outdoors makes her tire very quickly, she should take only a short walk and spend most of her outdoor allotment of time sitting and resting, especially when the sun is shining. This will insure not only physical but also mental relaxation.

The prospective mother should learn to rest frequently, especially if she does housework. Most women, and more particularly those who tire easily, will find an afternoon nap of an hour or more of great help. Even if one does not actually sleep, complete relaxation in a reclining position will prove refreshing. To obtain the full benefit of such relaxation, it is essential to undress and go to bed. Where there are young children in the home, the mother may take her siesta when the children take theirs. If exercise is taken during the day, there need be no fear that an afternoon nap will prevent sleeping at night.

It may not be amiss to add a word about modesty. Not infrequently, women refuse to leave their home, even for a short walk, during the last few weeks or months of pregnancy because they are ashamed of their looks. This attitude is entirely unwarranted. Women should be proud that they are to become mothers, for there are women, and unfortunately they are numerous, who would give a part of their life for the ability to give birth to a baby but who cannot have children.

Places of amusement may be visited, but those that are poorly ventilated or overheated should be avoided. Jostling in crowds is, of course, bad.

Massage during pregnancy is rarely necessary and is permissible only on the advice of a physician. Women who must remain in bed for a few weeks during pregnancy may need massage.

## BATHING

Many people firmly believe that bathing during pregnancy is harmful. This is a pernicious belief. The skin should be kept clean at all times, but more especially during pregnancy, because the activity of the skin is greater than usual at this time. This is due to the increased elimination and excretion of the body during pregnancy, and the skin constitutes an important organ for these purposes. The expectant mother must eliminate not only her own waste products but also those of the child within the womb.

The skin contains myriads of openings called pores, which lead to sweat glands. By means of these pores certain excretory products of the body are eliminated. If these pores become clogged, proper elimination is prevented and the expectant mother suffers in consequence.

The water and waste products that cannot be thrown off by the sweat glands remain in the blood until the kidneys, the bowels and the lungs do the work. An unpleasant odor usually develops. To keep the pores open, to remove the accumulation of degenerated skin, dirt, grease and dried perspiration, and to keep the skin functioning, it is necessary to wash the entire body with soap and water and this must be done daily.

### *Kind of Bath to Take*

The kind of bath is important. One may take a shower, a sponge or a tub bath, but the water should be neither too hot nor too cold. Very hot baths cause fatigue. The water should preferably be at a temperature between 85 and 90 F. Even the woman who is accustomed to a cold bath each morning should increase the temperature of the water during pregnancy; for while a cold bath is stimulating, it is not as efficacious as a warm bath for actually cleansing the skin. However, women who are accustomed

*The expectant mother especially needs to take a daily bath. Elimination is increased at this time.*

to a cold shower or tub bath may take such a cold bath in the morning and leave the cleansing bath for the evening.

Since the object of a bath is not only to cleanse the skin but also to stimulate the circulation of the skin, it is advisable to rub the whole body with a rough towel, fairly vigorously. A "salt towel" may be more effective for this purpose, especially if there is profuse perspiration. A "salt towel" is made by immersing a coarse bath towel in a strong salt solution and wringing it as dry as possible.

### *Warm Bath Daily*

It does not matter much whether the daily warm bath is taken in the morning or in the evening before retiring. However, for women who do not sleep well, it is best to take the warm bath at night, because it is soothing and will promote sleep. If the warm bath is taken in the morning or during the day, at least an hour should elapse before one goes outdoors. If the bath is taken in the afternoon, at least two hours should have passed after the midday meal.

Sponge baths and shower baths may be taken up to the time of actual confinement, but not tub baths. The latter should be avoided during the last four weeks of pregnancy, and sponge and shower baths substituted. Tub baths are shunned during the last month of pregnancy because there is danger of the bath water gaining access to the organs and causing infection. This danger is much greater in women who have already borne children and is more manifest the nearer the time of confinement. When taking tub baths, women should be especially cautious to avoid slipping or falling while getting in and out of the tub.

The following types of bathing should be avoided by most women: cold tub baths, cold plunges, cold showers (except for those who are accustomed to such baths), ocean bathing and Turkish and Russian baths. Hot sitz baths should be taken only on the recommendation of a physician. Sweat baths should also be shunned except on the physician's recommendation, because they usually prove to be too exhausting. They rarely do any good in normal women.

### *Care of the Breasts*

Special attention should be paid to cleansing the breasts and nipples. Care must be exercised to avoid compression of and injury to the breasts; this holds true not only during pregnancy but also during the entire life of the woman, from early infancy. Certainly beginning with puberty, the breasts should be protected from excessive pressure and from injury.

During pregnancy, a breast supporter should be used, especially if the breasts are large. The skin of the breasts should be washed with soap and water daily just as the rest of the body. Special precautions should be taken to remove the scales that frequently cover the nipples. These scales are due to drying of the discharge which normally exudes from the nipples during pregnancy. The nipples may be anointed daily with cocoa butter, cold cream or lanolin. Astringents, such as alcohol, should not be used because they harden the nipples, thereby favoring the formation of cracks, which may become avenues of infection.

If the nipples are flat, they may be drawn out for a few minutes each day during the last few weeks of pregnancy; but this must be done with the utmost gentleness and after demonstration by a physician or nurse.

The genital organs likewise require some special attention. During pregnancy there is increased secretion, but this does not require removal. On the contrary, this increased secretion is a helpful measure and should not be disturbed. To avoid any possible irritation of the surrounding skin and a disagreeable odor, daily washing of the skin is necessary.

# Safety First for July Fourth

By Jane Stafford

LAST year 111 persons, mostly children, lost their lives as the result of Fourth of July accidents. Few of us know that many children. Think of 100 boys and girls, all the little children any one of us knows, being killed in one day. It is appalling, even in this age, used as we are to thinking in millions.

If an ocean liner, quite a small one, carrying only about a hundred passengers and crew, were sunk in midocean and all were lost, it would seem a shocking disaster. Yet no one seems disturbed that a like number of people die yearly in Fourth of July celebrations. Had the ocean liner been warned that there were icebergs in her path, and that there would be no chance of rescue if she were struck, her officers and crew would be severely blamed for not having altered her course.

### *Warnings Have Not Been Heeded*

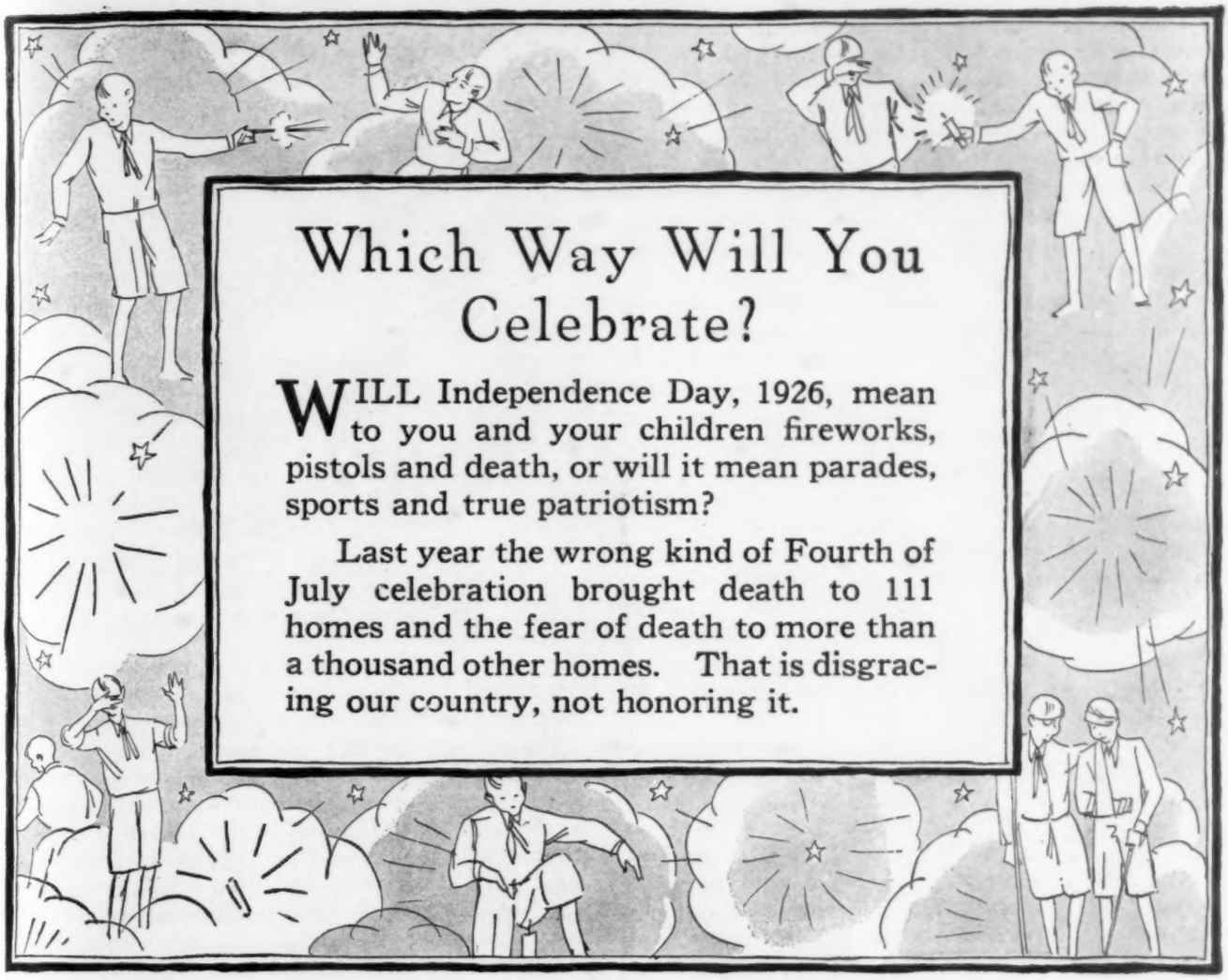
The people of this country have been warned, repeatedly, of the danger of explosives in celebrating the Fourth of July, but they have pursued the same foolhardy course year after year.

A man who has lost his sight because a giant cracker, which he was setting off to celebrate the Fourth of July, exploded in his face probably does not now think that he has much cause for celebration. Such accidents last July Fourth resulted in 148 persons losing the sight of one or both eyes. Over a thousand persons were injured, many of them children who lost a finger or a hand or were otherwise crippled for life.

### *Goaded into Danger*

In one of the poorer neighborhoods of a large city lived a talented boy who was capable of becoming a great pianist. He practiced earnestly all day long so as to hasten the time when he could support his widowed mother. His playmates called him a bum sport because he would not spend either time or money on fireworks. At last he was goaded into joining them. Determined to make a brave showing for once, he bought the largest cannon cracker he could find, and set it off. His skilful fingers were clumsy at this task, and the cannon exploded in his hand, blowing off three fingers and with them all his hopes for the future.

In 1903, the American Medical Association began a campaign to reduce the number of casualties from Fourth of July accidents. The


Which Way Will You Celebrate?
WILL Independence Day, 1926, mean to you and your children fireworks, pistols and death, or will it mean parades, sports and true patriotism?
Last year the wrong kind of Fourth of July celebration brought death to 111 homes and the fear of death to more than a thousand other homes. That is disgracing our country, not honoring it.

celebration that year had been responsible for 466 deaths and over 4,000 injuries. This was the first time that statistics had been collected and even they were incomplete. For the next fifteen years the American Medical Association continued to collect these figures and to report them through *The Journal*. Questionnaires were sent to every hospital and physician and health department in the country. All the health agencies and newspapers cooperated in reporting casualties from Fourth of July celebrations.

### *Largest Toll among Children*

In almost every instance, it was a child that was injured. Small boys, leaning over to examine the defective fuse of a cannon cracker, lost one or both eyes when the cracker suddenly exploded in their faces. Many a boy, thinking a blank cartridge safe, has held the muzzle of his pistol against the palm of his hand, or against his or another boy's arm, and pulled the trigger, with dire results. Arms and legs have been lost from such accidents.

Great numbers of persons entirely untrained in the use of firearms assumed the responsibility of firing guns and cannons in Fourth of July celebrations. In these cases, it was usually the innocent bystander who suffered death or lasting disability. In one year alone, almost half of those who were injured were orderly persons who were struck by stray bullets from firearms recklessly used by others, and six died from such accidents.

### *Fireworks Are Never Harmless*

Many of the so-called harmless fireworks were found to be equally as dangerous as firearms. Little girls and babies in their carriages have been given sparklers to play with. Too often the sparks have ignited their clothing, and the babies and little girls have been badly burned, many of them dying from the burns.

In the beginning, however, tetanus was the chief cause of death. Hundreds of children, even babies, suffered the agonies of this disease. Antitetanus vaccine had been developed, but in most instances was given too late to save the children from this most horrible of deaths. Nearly all the tetanus cases developed from blank cartridge wounds. An attempt was even made to establish the fact that the cartridges themselves contained the tetanus organism. This was never satisfactorily proved, however.

Puncture wounds, such as blank cartridges make, are extremely apt to develop lockjaw, for bits of dirty clothing and skin are forced into the wound. Consequently, every effort was made to have the sale of blank cartridges and toy pistols prohibited.

The first year after the publication of these statistics showed a gratifying drop in the number of deaths from Fourth of July accidents. Then the number rose again, in spite of all warnings, until in 1909 it reached 215 deaths, 125 of which were from lockjaw. In 1908, however, *The Journal* added to its lists of casualties, a list of the accidents and deaths in eighty-four of the largest cities.

At last, it seemed that the proper note had been struck. An appeal had been made to civic pride. The city governments, on which the responsibility for these casualties clearly rests, were finally roused to action. Ordinances were passed limiting and prohibiting the sale of blank cartridges, toy pistols and firecrackers. In those cities in which such laws already existed, they were for the first time enforced. Washington, Baltimore, Cleveland and Chicago reported no deaths and a greatly reduced number of accidents the year following the passage of restrictive and prohibitory ordinances.

### *Springfield Leads the Way*

However, the greatest credit went to Springfield, Mass., where an entirely new form of celebration was substituted for the old dangerous one. Parades of soldiers, floats portraying historic events, processions of children, flying of flags, music and oratory took the place of toy cannons, giant crackers, blank cartridges and other death-dealing devices. The era of a safe and sane Fourth of July had opened.

About this time, too, people had begun to realize the importance of treating all Fourth of July injuries promptly. The records collected by the American Medical Association showed that hundreds were dying because antilockjaw serum was not given until too late to save the sufferers. In most cases Fourth of July wounds had been given home treatment, and a physician had not been called until the patient was desperately sick. The widest publicity was given to proper methods of handling Fourth of July casualties and their danger was emphasized.

Consequently encouraging progress was made in the reduction of accidents and deaths. Finally, in 1916, no death was reported from tetanus, and only thirty from other causes as a result of the Fourth of July celebration. It seemed that a more enlightened patriotism had triumphed. The American Medical Association, delighted with the success of its campaign, transferred its energies to other channels, feeling sure that the vigilance of the city governments would now continue to hold in check the lawless

*Sanity vs. Gunpowder. A cartoon that appeared in the Philadelphia Record some years ago as a part of the original campaign against Fourth of July accidents.*

element that might cause such disastrous accidents in Fourth of July celebrations.

Unfortunately, the lesson so dearly learned was soon forgotten. The sacrifice made by the 44,801 persons killed or injured during the fourteen years that statistics were gathered and by uncounted thousands in the preceding years seems to have been made in vain. In 1903, there had already been a striking disaster to warn the people against this form of celebration. Fireworks used in the Memorial Day celebration in Philadelphia had taken a horrible number of lives. Yet in spite of this, Philadelphia had the greatest number of Fourth of July casualties of any city in the same year, and continued to hold this unenviable record for many years.

### *Plea of Ignorance Not Valid*

For fourteen years the actual figures for such accidents and deaths have been at hand, have been given the most widespread publicity. The warning of fourteen years' experience seems to have been of no avail. The plea of ignorance was not considered valid in 1903; it could scarcely be held so today. It should not be necessary to repeat the warning. It should not be necessary to repeat the tale of the suffering and anguish that was felt in thousands of American homes.

A generation that has so recently known the horrors of a World War, a nation that exerted its influence and every effort for the cause of humanity and of universal freedom from war and its sorrow, should need no urging to demand a safe and sane celebration of its national birthday.

"Every paper we pick up and every popular magazine have articles nowadays showing that low morals, disregard for law, and graft, in high

places and low, are rife enough without giving over our national holiday to further this decadence in our national life." If this was true when it first appeared in *The Journal* of the American Medical Association in 1910, how much more true it is today! In our desire to return to the "good old days" of peace and prosperity, there is no need to return to an age of uncivilized carnage.

However, the rowdy element that delights in noise and lawless amusement, that confuses liberty with license, is always with us, always ready to break out in the same old wanton pursuits. Unrelaxing effort is needed to control this element. Then, too, a new generation is growing up. It must be protected from the influence of hoodlums and lawbreakers. It must be educated to celebrate the Fourth of July in a safe and more intelligent fashion. It must, in its turn, educate the following generation along the same lines of humanity, law and order.

### *Fireworks Sold in "No Man's Land"*

City governments must never fail in their duty of maintaining public safety. They must continue to enforce their laws prohibiting the sale of dangerous fireworks and firearms. At the same time, municipal governments are powerless to keep people from buying firecrackers that are sold outside the city limits. Riding along the highways during the first week in July, one may see shacks and tents in the no man's land between towns and villages where fireworks of all kinds are bought and sold. The responsibility for wiping out this condition rests with the townships and counties. Law enforcement will be difficult here, but public opinion can bring it about.

The celebration of our national independence must be made in a way that will be in accord with the achievements and high ideals that have marked the history of the nation. It should be an occasion when love for law and order and civilization are instilled into the hearts of the people.

### *How the Day May Be Celebrated*

We have discovered that the Fourth of July becomes a happy, joyful anniversary, free from noisy strife and suffering when we celebrate it with our family and friends in visiting, picnics or athletic competitions. Parades of children, the display of the national colors, band music, pageants, amateur theatricals or moving pictures depicting the great events of our national history are more thrilling, more truly inspiring than the reports of firecrackers and pistols or even the most elaborate display of fireworks ever imported from China. We should not have to anticipate our national holiday with dread, nor look back on it with horror. Yet such are the feelings that the Fourth of July arouses in many a mother's heart as a result of the reckless, mad way we have celebrated it in the past.

For in ten years the equivalent of forty regiments was killed or wounded. These horrors, once known, should never have recurred. We must make it impossible for a child to burn to death, to have a hand blown off, or to lose an eye, or, worst of all, to suffer the agony of tetanus. There must be no more fireworks except public displays conducted by expert, responsible persons. Each of us must work for safety first for the Fourth of July; safety first and safety for all.

When a father gives his child Fourth of July spending money this year, let him persuade the

*Courtesy National Safety Council*

***Display of the national colors, music and children on parade may bring greater thrills than the reports of firecrackers and pistols.***

boy not to spend it for fireworks, but to buy some other kind of toy, a baseball or bat, or a roll of films to take Fourth of July pictures, or let him treat his friends to a movie. Then he will be sure that neither himself nor any other parent will have cause to regret this year.

The child may complain that the boys will call him a "sissy" or a "mamma boy" if he does not shoot off firecrackers. Children hate to be different; they resent being thought more careful than the others. Yet they can be impressed, if not by the fear of danger to themselves, perhaps by the thought of lasting harm coming to some playmate or little sister or brother through their carelessness or selfishness.

Even if the child has no firecrackers or toy pistols, he may be in danger from those shot off by the neighbors. Part of the lesson learned from past experience with July Fourth casualties is that tetanus from blank cartridge wounds was the largest single cause of death. Besides wounds from blank cartridges, other injuries sustained on the Fourth of July are particularly apt to develop tetanus. They should, therefore, be given prompt and careful attention, no matter how trivial they may seem at the time.

No child is too young to learn that a Fourth of July injury requires immediate, adequate care, preferably by a physician. Many Fourth of July deaths could have been prevented if small boys had not, in a false spirit of bravado, neglected even to tell their parents of minor wounds until too late to prevent lockjaw.

Youth is often foolhardy, but it must be taught. There is, of course, no excuse for the parent who allows his child to suffer needless pain, perhaps to die, because he considered a small injury unimportant, treated it carelessly himself, and failed to call a physician, who would have known whether or not it was necessary to give antitetanus serum.

We have learned the remedy for this Fourth of July evil. It remains that we apply it. If people cannot remember the lesson so dearly taught, they must be reminded every year. Better that the campaign never stop than that a single child die the torturing death of lockjaw.

Boy and girl scouts, fraternal societies, municipal governments and health organizations of all kinds can have no better summer activity than the promotion, the enforcement even, of safety first for July Fourth.

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# Lockjaw

*By William H. Park*

THE number of cases of communicable diseases is reduced during the summer and the general health is improved because of an outdoor existence, but there are other health hazards to be considered.

Camping and picnic parties are frequently interrupted by accidents of varying degrees of severity. Children running about barefoot on the streets and in back yards are often wounded by rusty nails or dirty, broken crockery. Fourth of July celebrations are the occasion of numerous injuries. Too often lockjaw, or tetanus, follows as the result of hasty, inadequate care of these apparently minor injuries.

This terrible disease usually begins with spasms of the muscles of the jaw and neck. When it is well developed, it is impossible for one to open the mouth at all. Later the spasmodic contractions extend to all the muscles of the body. The death rate is high.

Cases of lockjaw existed thousands of years ago, and it was noted that the disease was apt to follow ragged, penetrating wounds in which at least a trace of dirt entered. In 1885, the reasons why a ragged, penetrating wound and dirt were so apt to be followed by lockjaw were discovered. Nicolaier found a very resistant microbe in the dirt, and he called it the tetanus bacillus. The bacillus produced a spore that was so resistant that it withstood boiling for some minutes and remained alive in the soil for months. When dried dirt containing the spores was blown into barns and houses and so protected from the effects of weather, the spores remained alive for years. It was found that dirt on clothes and even on the skin might contain them.

It was discovered that the feces of horses and cattle and even of man were apt to be badly infected with the germs of lockjaw. In fact, the condition of the remains of the food in the intestines suited exactly the needs for growth of the tetanus bacilli. Whenever the manure of horses and cattle was deposited in the soil, the earth became infected and anything that the earth or the dust settled on might be infected.

If a rusty nail was stepped on and penetrated the skin, it might infect the wound with the germs of lockjaw resting in the soiled stocking or the skin. A blank cartridge wound or a leg

or arm crushed in an accident might be readily infected with the germs.

In 1889, a Japanese, Kitasato, obtained the bacillus in pure culture and found that it made a tremendously powerful toxin. One-thousandth of a drop of the poison developed by this bacterium would produce lockjaw in a full sized guinea-pig. Fortunately the toxins of the bacilli that grow in our intestines either are not absorbed or they are digested so that they produce no poisoning. A horse that wounds itself and infects the wound from its dusty hair may die from lockjaw from the very germs which in its intestines did no harm.

### *Discovery of Lockjaw Antitoxin*

Kitasato not only studied the lockjaw poison but, with Behring, discovered an antitoxin. These two scientists found that if a horse was given repeated doses of poison, its blood would show a gain in antitoxin a few days after each dose, so that after six months of treatment one drop would contain enough antitoxin to neutralize ten thousand fatal doses of toxin for a guinea-pig. It was found that, if this antitoxic serum was injected within a day after the animal had been infected, it would resist infection.

The antitoxin was then tried on man. If antitoxin was given after penetrating wounds and after wounds in which the tissues were crushed, lockjaw did not develop, while, if it was not given, lockjaw would not infrequently follow. It was discovered that the antitoxin, because it was made by the tissues of the horse, did not remain for a long time in the blood of man. It was therefore necessary to give a second dose ten days after the first, if the wound was still open and showed signs of infection.

In the World War the wounded who received antitoxin did not develop lockjaw until at least ten days had elapsed. This led physicians to repeat the dose, and then practically no cases developed. Thus the disease previously so greatly dreaded ceased to be of importance among the wounded that had been protected by the injection of the antitoxic serum.

The antitoxin is also of great use in treatment, but is not as successful as is diphtheria antitoxin in diphtheria. This is because physicians know that a person has lockjaw poisoning only when the symptoms appear, which is about the second or third day of the poisoning. By that time the toxin in the wound has passed up the nerves to the central nervous system, and grave poisoning has already occurred. A physician, when he sees the symptoms, should not lose a minute in giving the antitoxin. He usually will inject it both into the spinal canal and into a vein, so that it may get to the tissues of the spinal cord and brain at the earliest possible moment.

If a person is wounded by the thrust of a rusty nail into the foot or by any wound in which a bit of clothing, hair or any foreign substance may have been driven, he should first try to remove all foreign material from the wound and cleanse it with some antiseptic solution. If he has allowed the wound to remain untreated for several days and a little pus has formed, he should immediately consult a physician and have it thoroughly opened, cleaned and disinfected with a solution of iodine.

### *Protection Is Absolute*

To all persons who have been wounded in places in which cases of lockjaw have been known to occur, a prophylactic injection of antitoxin should be given. This will give absolute protection and can do no harm except that perhaps a serum rash, like hives, may develop. Contused and lacerated wounds are the most dangerous; blank cartridge wounds are especially dangerous.

The number of cases of tetanus following Fourth of July wounds has markedly diminished since the American Medical Association commenced its campaign for a safe and sane celebration and for the proper treatment of those who were wounded.

It is impossible to prevent the possibility of infection with the lockjaw germ, but there are at hand completely effective measures to prevent the development of lockjaw. If a person neglects these and develops lockjaw, he still has in antitoxin a very valuable remedy, provided it is given immediately after the development of the symptoms.

*The business woman that keeps up a home should make lunch time her best meal. She, whose every other hour of the day is given to service of others, has for a few short minutes the pleasure of being served.*

# The Business Lunch

By SOLOMON STROUSE

THE words "business lunch" have an entirely different meaning to different persons. To one man, the business lunch means the hour during which he is away from the office; to another it is the actual eating time.

The club man may spend the hour at his club in relaxation with his cronies. The stenographer may consider eating merely incidental to an hour's walk, a shopping tour or a glimpse at the treasures of the art gallery. The busy practitioner of medicine, not following the advice he gives his patients, is apt to be seen at a lunch counter hastily swallowing a sandwich and a cup of coffee. So a discussion of the business lunch really should embrace a discussion of how to spend the hour in the middle of the day usually given up to eating.

### *Food Usually Given Second Thought*

If a person has the habit of not eating his lunch at the same place every day, he surely will have noticed how differently people take this duty. My own impression of the business lunch, based on an experience in all kinds of eating places, is that food is of secondary importance and that most people at this hour eat because they have to, and have their minds on some other objective. The primary purpose of the business lunch seems to be either the enjoyment of society, rest and relaxation, or a quick means of getting back to the job. Certainly there can be no doubt as to the value of using the luncheon hour primarily for social intercourse or for rest and relaxation.

However, the food part of the luncheon cannot be disregarded, especially the amount of time given to actual eating. In American life persons seem too ready to bolt their food, too unwilling to employ leisure and to enjoy eating.

### *Should Avoid Noisy, Hurried Luncheons*

The terrific rush of lunchrooms in the business district of big cities gives proof of this statement. The stream of persons going in and out is so constant that one wonders whether food is not really shot down in the same machine-like way that cash carriers do their jobs. The modern worker lives so strenuously that he thinks every minute of the day has to be employed in something useful, and he forgets the necessity of taking care of his digestive tract. It is much more important to sit down leisurely for almost any kind of a lunch than to rush through a properly balanced ration.

The place in which one eats lunch is of importance. In the noisy, hurried eating place, it is impossible to have the luxury of leisure. In the quiet dignified place, the atmosphere conduces to leisure. Leisure in eating is the best digestive tonic that a physician can prescribe. Places equally clean, equally sanitary and serving equally good food may differ in this vital

## *Leisure in Eating Is the Best Digestive Tonic That a Doctor Can Prescribe*

*The club man may spend an hour at his club in diversion with his cronies. This allows smoking time for the man who enjoys the relaxation of "my Lady Nicotine."*

essential. The noisy, hurried place should be reserved for those rare persons who simply cannot find the time to devote to lunch.

Regarding the food to be eaten, it is impossible and unwise to lay down rules of procedure that would be of value to any group of persons. Both the quality and the quantity depend on many factors, not the least important of which is the relationship existing between the luncheon meal and the other food taken during the day.

### *Light Lunches Are Best for Many*

A person who eats a big breakfast and a heavy dinner at night may not feel the need of more than a glass of milk and a few crackers for lunch. The stomach may be satisfied by this, and other demands of the body economy may also be met. In fact, many hard workers have a decided feeling of well-being after partaking of light lunches, and have a distinct feeling of gastric uneasiness and mental lethargy after a full meal. For such persons, it is unwise and unnecessary to advise a change in habits.

The hard working girl or married woman who, before starting to work in the morning, prepares breakfast for her family, dusts a room or two, dresses the children for school and then rushes out to work, may at lunch time eat her fullest meal. She will enjoy the pleasure of being served. She, whose every other hour of the day is given to service to others, has for a few minutes a real pleasure in being waited on.

To her the noon meal should be a rite, in which the slave becomes the priestess. She enjoys a full hour, and she eats a full meal. It would be just as foolish to commend to this person a light meal as it would be to recommend a heavy one to the milk drinker.

The kind of work a person is engaged in, his size, build and dietary habits make it perfectly impossible even to discuss what may be an ideal lunch. Has the person time for a few minutes' rest after eating? Does he go back to the office to give dictation or does he tramp the street selling real estate?

From these questions it must be apparent that to insist on a standard lunch would be folly. The food eaten at noon should conform to the food eaten the rest of the day, so that the total forms a well balanced ration.

Lunchroom observations are of value for interpreting dietary habits only when they exhibit striking abuse. One knows that the thin, nervous young woman who is imbibing two cups of strong coffee would be better off for an equal amount of milk; or that the stout lady should not partake of bananas, cake and malted milk.

### *Not Enough Milk Taken*

Nature seems to have a peculiar way of caring for her children; even a critical eye does not detect gross errors in the average lunch pur-

chased at the average lunchroom. Perhaps—and this observation is personal and may not be corroborated by statistical evidence—not enough milk is drunk and too many sweets are eaten. There has been other evidence that milk is not taken in large enough amounts by the American consumer. Possibly the reason for extra consumption of sweets is unconscious economy. Sugar is the cheapest food we have.

### *Too Little Milk; Too Many Sweets*

This naturally brings us to a most vital point in the discussion of the business lunch, and that is the economic side of the question. In the good old days we bought an egg sandwich, a glass of milk and a baked apple for 20 cents; and we received our money's worth of calories, protein, fat, carbohydrate, vitamins and minerals.

It is not always easy to buy the most for our money; our eyes and our tastes betray our judgment. A very pleasantly arranged lettuce and tomato salad may look better for 35 cents than a dish of spaghetti and tomatoes for 15, but the calories per cent will be much less. The actual food value of the salad resides in the vitamin content of the fresh vegetables and the calories of the oil used as dressing, while the spaghetti is a concentrated mixture of calories. However, this does not mean that spaghetti is the better luncheon food; it simply means that a person is getting more for his money when he buys spaghetti.

Every one knows that the caloric value of food varies, that an ounce of fat yields approximately 270 calories, and that protein and carbohydrate each yield 120 calories to the ounce. Protein calories are more expensive than carbohydrate calories. A pound of round steak costs 30 cents in the butcher shop and gives 20 per cent protein, but the grocer gives a pound of sugar for from 8 to 10 cents.

### *Fuel Values of Foods*

Butter and eggs, cream and oil furnish the main fat elements of food. Butter, yielding almost pure fat, costs 42 cents a pound; eggs (in the spring) cost about 30 to 45 cents a pound and yield 13 per cent protein and 10 per cent fat; cream, at 36 cents a pound, gives only 20 per cent fat, while cotton or corn oil, at about 25 cents, yields almost pure fat. Without much trouble a person can see how much he is getting for his money by converting these figures into money's worth.

*Food Eaten in One Chicago Coffee Shop During Typical Lunch Hour*

| | Amount | Protein, Gm. | Fat, Gm. | Carbohydrates, Gm. | Calories |
|---|---|---|---|---|---|
| Round of beef | 77 lbs. | 7,407 | 4,731 | ..... | 72,207 |
| Pickled ham | 65 lbs. | 4,368 | 10,296 | ..... | 109,936 |
| Corned beef | 19 lbs. | 1,423 | 2,371 | ..... | 26,031 |
| Pork shoulder | 30 lbs. | 1,872 | 4,896 | ..... | 51,552 |
| Frankfurt sausage | 6 lbs. | 576 | 547 | ..... | 7,227 |
| Stewed chicken | 16 lbs. | 1,459 | 1,229 | ..... | 16,897 |
| Chopped beef | 2 lbs. | 240 | 211 | ..... | 2,859 |
| Bacon | 1 lb. | 50 | 301 | ..... | 3,000 |
| Leg of lamb | 6 lbs. | 547 | 652 | ..... | 8,146 |
| Rib of beef | 13 lbs. | 1,037 | 3,110 | ..... | 32,138 |
| Beef tongue | 9 lbs. | 821 | 389 | ..... | 6,785 |
| Cold sliced veal | 2 lbs. | 144 | 106 | ..... | 1,530 |
| Lobster | 10 lbs. | 768 | 96 | ..... | 4,936 |
| Sweetbreads | 5 lbs. | 408 | 238 | ..... | 4,224 |
| Chicken salad | ½ gal. | 228 | 166 | 7 | 2,434 |
| Boiled ham | 1 lb. | 106 | 101 | ..... | 1,433 |
| Potatoes | 300 lbs. | 2,330 | ..... | 25,920 | 115,200 |
| Macaroni (dry weight) | 12 lbs. | 749 | ..... | 4,262 | 20,044 |
| Navy beans | 10 lbs. | 144 | ..... | 2,830 | 12,096 |
| Asparagus | 10 bch. | 30 | ..... | 90 | 480 |
| Peas | 2 gal. | 256 | ..... | 640 | 3,584 |
| Rice | 7 lbs. | 269 | ..... | 2,654 | 11,692 |
| Tomatoes | 2 bsk. | 24 | ..... | 96 | 480 |
| Cold slaw | 3 gal. | 43 | ..... | 240 | 1,152 |
| Sauerkraut | 3 gal. | 48 | ..... | 240 | 1,152 |
| Lettuce | 10 heads | 24 | ..... | 72 | 384 |
| Soup (figured as stock) | 3 gal. | 128 | 64 | 64 | 1,344 |
| Peaches | ¼ gal. | 16 | ..... | 160 | 704 |
| Pineapple | ½ gal. | 16 | ..... | 320 | 1,334 |
| Bananas | ½ doz. | 6 | ..... | 132 | 552 |
| Apples | ¼ doz. | 3 | ..... | 36 | 156 |
| Apple sauce | 1 gal. | 32 | ..... | 384 | 1,664 |
| Pies | 38 | 912 | 2,736 | 11,664 | 74,928 |
| French pastry | 40 | 40 | 200 | 600 | 4,360 |
| Puddings | 55 | 275 | 440 | 1,540 | 11,220 |
| Baked apples | 12 | 12 | ..... | 204 | 864 |
| Layer cakes | 2½ | 160 | 200 | 1,800 | 9,640 |
| Sweet rolls | 20 | 90 | 70 | 590 | 3,350 |
| Loaves of bread | 40 | 1,728 | 132 | 10,176 | 49,344 |
| Plain rolls | 48 | 144 | 43 | 1,056 | 5,187 |
| French doughnuts | 6 | 12 | 43 | 120 | 960 |
| Coffee | 14 lbs. | ..... | ..... | ..... | ..... |
| Tea | 2 lbs. | ..... | ..... | ..... | ..... |
| Milk, half pints | 144 | 1,140 | 1,520 | 1,900 | 25,840 |
| Cream (figured as 18 per cent) | 4 gal. | 358 | 2,656 | 666 | 28,090 |
| Butter | 12 lbs. | ..... | 4,800 | ..... | 43,200 |
| Sugar | 18 lbs. | ..... | ..... | 8,640 | 34,560 |
| Ice cream | 1 gal. | 92 | 337 | 561 | 5,645 |
| Malted milk | ½ lb. | 37 | 19 | 152 | 927 |
| Total | | 31,127 | 42,825 | 76,966 | 817,797 |
| Average per person | | 36.6 | 50.3 | 90.5 | 962.0 |

Some approximate calculations of what 10 cents will buy are given in the table.

| Food | Cost per Pound | Calories for 10 Cents |
|---|---|---|
| Fats (cotton seed oil).... | 25 | 1,580 |
| Butter ..... | 40 | 864 |
| Milk ..... | 10 | 320 |
| Cream ..... | 36 | 264 |
| Round steak ..... | 30 | 260 |
| Eggs (average)..... | 40 | 160 |
| Bread ..... | 10 | 1,200 |
| Sugar ..... | 10 | 1,840 |

From this table it can be seen that, generally speaking, the carbohydrates are the least expensive fuel, fats next and protein the most expensive. The other elements of food, besides fuel value, need not be considered in this connection.

### *A Typical American Lunch*

In this connection I am able to give on the preceding page some figures of one actual meal eaten at a better class coffee shop in the Chicago loop. The figures of food eaten were furnished by G. Dell Brown, food controller of the coffee shop, and the calculations were made by Miss K. Mitchell, head dietitian of the Michael Reese Hospital. It will be noted that grams are used instead of ounces; approximately 30 grams equal 1 ounce.

*The stenographer may consider eating merely incidental to a shopping tour, a marcelle or a visit to the art gallery.*

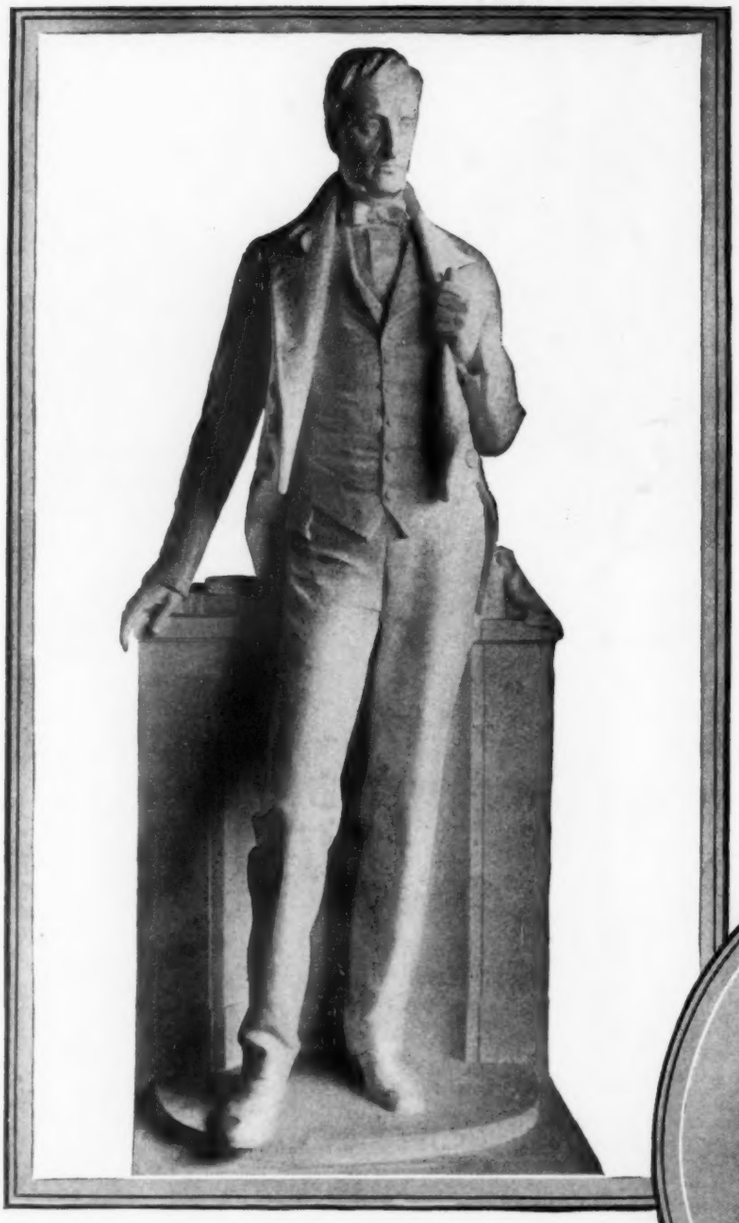
*The busy practitioner of medicine, not following the advice he gives his patients, is apt to be seen at a lunch counter hastily swallowing a sandwich and a cup of coffee.*

On a certain day in May, 1926, 850 persons—men and women—paid a total of $382 for the amount of food given in the table. Each person spent on the average a fraction less than 45 cents for lunch, and the average food consumption per person was 36.6 Gm. protein, 50.3 Gm. fat, 90.5 Gm. carbohydrate and 962 calories.

In terms of calories for 10 cents each person ate 214 calories for each 10 cents spent. The food eaten was well balanced, contained proper amounts of minerals and vitamins, and on the whole is probably fairly typical of the American business lunch.

### *Cheap Lunchrooms Not Always Cheapest*

Cheap lunchrooms are not always economical places in which to eat. Food carelessly purchased, prepared or served is never good food, and is rarely cheap to the consumer. To get first class goods in any line one has to pay a decent price, but this remark is not to be interpreted as recommending expensive lunchrooms. Some of the better class cafeterias of any large city give really excellent values, and those who prefer more quiet and dignity than the cafeteria style affords can by a little personal investigation find many restaurants serving inexpensive table d'hôte lunches which satisfy eye, taste, body needs and pocketbook.

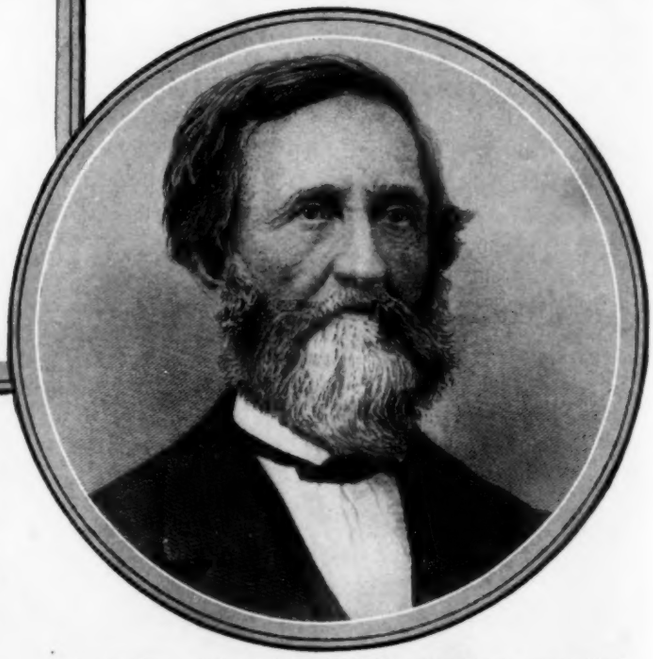


From an Address at the Unveiling of the Statue of

# CRAWFORD W. LONG

*Discoverer of Ether Anesthesia*

By
HUGH H. YOUNG
*Representing the Medical Profession of America*



*The statue of Crawford Williamson Long unveiled, March 30, 1926, at Statuary Hall, National Capitol, Washington, D. C., and a photograph of the discoverer of ether anesthesia taken in his later years.*

IN COMPARISON with surgical anesthesia, all other contributions to medical science are trivial. Before anesthesia, surgery was a horror! Surgical operations were dreadful ordeals, a hell to the patients, a purgatory to the surgeons. The frightful shrieks from the hospital operating rooms filled those waiting their turn in the wards with terror.

The awful experiences of operative surgery and the attendant high mortality caused the best minds in medicine to avoid operations. Indeed, for centuries many major operations in Europe were left to itinerant quacks, and in England the barber surgeons did the work while the medical profession stood by and vainly tried to assuage the anguish of the patient.

Since the beginning of medical history our records show that the never despairing hope of physicians was to conquer pain and thus be allowed to carry out surgical procedures with tranquil thoroughness rather than in a mad rush against pain and death.

"Sacred, profane and mythological literature abound in incident, fact and fancy showing that since earliest times man has sought to assuage pain by some means of dulling consciousness," says Gwathmey. "In these attempts many methods and diverse agents have been em-

## *Surgery Once Was a Horror of Pain and Infection; Crawford W. Long Was the First to Make It Painless*

*Before anesthesia was discovered, major operations in England were done by the barber surgeons. This is a hospital scene, reproduced from a wood cut of the sixteenth century.*

ployed. The inhalation of fumes from various substances, weird incantations, the external and internal application of drugs and many strange concoctions, pressure on important nerves and blood vessels, the laying on of hands or animal magnetism, mesmerism, etc., have played their part in the evolution of anesthesia."

Mandragora was used by both Greeks and Romans for hundreds of years to produce sleep, and Asiatics employed hashish to dull consciousness of pain. Later, opium and hemlock were used.

It was not until the early chemical discoveries of hydrogen, nitrogen, oxygen and nitrous oxide in the latter part of the eighteenth century that the way was found for a scientific anesthesia. Sir Humphrey Davy said, in 1800, "Since nitrous oxide is capable of destroying pain it may be used in surgical operations," and twenty-five years later Hickman anesthetized rabbits with nitrous oxide and carried out many operations on them successfully without a struggle. However, these demonstrations were unheeded, and the surgical theater continued to be a torture chamber.

### *"Ether Frolics" Once Popular*

But nitrous oxide and sulphuric ether, neglected by the medical profession, were seized on by the populace, who found in them a pleasant means of becoming exhilarated. Itinerant lecturers on the marvels of chemistry roamed over the country and popularized their meetings by giving young people ether to breathe, while the audiences roared with laughter over their unconscious antics on the stage.

Knowledge of these drugs reached even to the distant rural hamlets. In one of these, Jefferson, in Jackson County, Ga., many miles from a railroad, Crawford W. Long was practicing his profession of medicine. Fresh from the University of Pennsylvania, he knew of the exhilarating properties of these drugs and frequently furnished ether to young men who met at his office for an "ether frolic" in the winter of 1841-1842.

But let him tell his story: "They were so much pleased with its effects that they afterwards frequently used it and induced others to do the same, and the practice soon became quite fashionable in the county and some of the contiguous counties.

"On numerous occasions I inhaled ether for its exhilarating properties, and would frequently, at some short time subsequent to its inhalation, discover bruised or painful spots on my person, which I had no recollection of causing and which I felt satisfied were received while under the influence of ether. I noticed that my friends, while etherized, received falls and blows that I believed were sufficient to produce pain on a person not in a state of anesthesia. On questioning them they uniformly assured me that they did not feel the least pain from these accidents. Observing these facts, I was led to believe that anesthesia was produced by the inhalation of ether, and that its use would be applicable in surgical operations.

### *The First Patient*

"The first patient to whom I administered ether in a surgical operation was James M. Venable, who then resided within two miles of Jefferson. Mr. Venable consulted me on several occasions in regard to the propriety of removing two small tumors situated on the back part of his neck but would postpone from time to time the operation from dread of pain.

"At length I mentioned to him the fact of my receiving bruises while under the influence of the vapor of ether without suffering, and as I knew him to be fond of and accustomed to

inhale ether, I suggested to him the probability that the operation might be performed without pain, and proposed operating on him while under its influence. He consented to have one tumor removed, and the operation was performed the same evening. The ether was given to Mr. Venable on a towel, and when fully under its influence I extirpated the tumor.

"It was encysted and about half an inch in diameter. The patient continued to inhale ether during the time of the operation, and, when informed that it was over, seemed incredulous until the tumor was shown him.

"He gave no evidence of suffering during the operation, and assured me, after it was over, that he did not experience the least degree of pain from its performance. This operation was performed on March 30, 1842."

Here, then, was the first successful attempt to render a patient insensible to pain during a surgical operation! This was the beginning of a new era of incalculable relief of human suffering, an era that was to revolutionize surgery and make it a million times more efficient in alleviating human ills.

Long did not rush into print, but like a painstaking, modest scientist quietly continued his work, removing another tumor on the same patient a few weeks later, and then amputating a toe under complete ether anesthesia in July.

His meager practice furnished him only a few surgical cases each year. He continued to operate under ether, while he bided his time, waiting for a major operation before publishing his claims to a discovery that he well realized would revolutionize surgery and startle the world. Long thus succinctly gives his motives:

### *Why Long Did Not Publish His Discovery*

"I was anxious, before making my publication, to try etherization in a sufficient number of cases to satisfy my mind fully that anesthesia was produced by the ether, and was not the effect of the imagination or owing to any peculiar insusceptibility to pain in the persons experimented on.

"At the time I was experimenting with ether there were physicians high in authority and of justly distinguished character who were the advocates of mesmerism and recommended the induction of the mesmeric state as adequate to prevent pain in surgical operations. Notwithstanding that it was thus sanctioned, I was an unbeliever in the science, and of the opinion that if the mesmeric state could be produced at all it was only on those of strong imaginations and weak minds, and was to be ascribed solely to the workings of the patient's imagination. Entertaining this opinion, I was the more particular in my experiments in etherization.

"Surgical operations are not of frequent occurrence in a country practice and especially in the practice of a young physician, yet I was fortunate enough to meet with two cases in which I could satisfactorily test the anesthetic power of ether. From one of these patients I removed three tumors the same day; the inhalation of ether was used only in the second operation, and was effectual in preventing pain, while the patient suffered severely from the extirpation of the other tumors. In the other case I amputated two fingers of a negro boy; the boy was etherized during one amputation and not during the other; he suffered from one operation and was insensible during the other.

"After fully satisfying myself of the power of ether to produce anesthesia, I was desirous of administering it in a severer surgical operation than any I had performed. In my practice, prior to the published account of the use of ether as an anesthetic, I had no opportunity of experimenting with it in a capital operation, my cases being confined, with one exception, to the extirpation of small tumors and the amputation of fingers and toes.

"While cautiously experimenting with ether, as cases occurred, with a view of fully testing its anesthetic powers and its applicability to severe as well as minor surgical operations, others more favorably situated engaged in similar experiments, and consequently the publication of etherization did not 'bide my time.'"

### *Proof of Dr. Long's Claims*

But are Long's documents genuine, complete and convincing? I can personally testify that they are. In 1896, I chanced to meet Mrs. Fanny Long Taylor, who amazed me by saying that her father was the discoverer of surgical anesthesia. I had heard only of Morton, in whose honor, as the discoverer of anesthesia, a great celebration was in preparation in Boston. I was thrilled when she said she could put Dr. Long's documentary proofs in my hands, and when a few days later I hurried through his time-stained papers, case histories, account books, affidavits from patients, attendants, physicians in his town and elsewhere in Georgia, all of which furnished overwhelming proof of the originality of his discovery and his successful employment of ether to produce complete anesthesia in numerous operations, I asked permission to present his claims again in greater detail.

By happy fortune, I found one of Dr. Long's assistants still alive, and he (Dr. J. F. Groves) described Dr. Long's methods as follows: "Dr. Long poured ether on a towel and held it to the patient's nose and mouth . . . and determined when the patient was sufficiently etherized to begin operation by pinching him. Then he gave me the towel, and I kept up the influence by holding it still to the patient's nose. The patient was entirely unconscious."

Lack of space forbids my describing many interesting phases of the contest for the honor

of this colossal discovery. Jackson and Morton united in claiming the discovery in 1846, Morton admitting that he got the idea from Jackson and together they obtained a patent for their discovery, the nature of the anesthetic, which they called letheon, being kept secret. Wells then came forth with his claim of having used nitrous oxide in 1844. Morton and Jackson subsequently fell out, and Dr. Jackson, hearing of Long's claims, visited him in Georgia to investigate them and then generously wrote as follows:

Boston, April 11, 1861.

To the Editors of The Boston Medical and Surgical Journal:

Messrs. Editors:—At the request of the Hon. Mr. Dawson, U. S. Senator from Georgia, on March 8, 1854, I called upon Dr. C. W. Long, of Athens, Ga. From the documents shown me by Dr. Long, it appears that he employed sulphuric ether as an anesthetic agent:

1st, March 30, 1842, when he extirpated a small glandular tumor from the neck of James M. Venable, a boy in Jefferson, Ga., now dead.

2nd, July 3rd, 1842, in the amputation of the toe of a negro boy belonging to Mrs. Hemphill of Jackson, Ga.

3rd, Sept. 9th, 1843, in extirpation of a tumor from the head of Mary Vincent, of Jackson, Ga.

4th, Jan. 8th, 1845, in the amputation of a finger of a negro boy belonging to Ralph Bailey of Jackson, Ga.

Copies of the letters and depositions proving these operations with ether were all shown me by Dr. Long.

I then called on Profs. Joseph and John Le Conte, then of the University of Georgia at Athens, and inquired if they knew Dr. Long, and what his character was for truth and veracity. They both assured me that they knew him well, and that no one who knew him in that town would doubt his word, and that he was an honorable man in all respects.

Subsequently, on revisiting Athens, Dr. Long showed me his folio journal, or account book, in which stand the following entries:

James Venable

| | |
|---|---|
| March 30th, 1842, Ether and excising Tumor | $2.00 |
| May 13, Sul. Ether..... | .25 |
| June 6th, Excising Tumor..... | 2.00 |

On the upper half of the same page, several charges for ether sold to the teacher of the Jefferson Academy are recorded, which ether Dr. Long told me was used by the teacher in exhibiting its exhilarating effects, and he said the boys used it for the same purpose in the academy. I observed that all these records bore the appearance of old and original entries in the book.

I have waited expecting Dr. Long to publish his statements and evidence in full, and, therefore, have not before published what I learned from him. He is a very modest, retiring man and not disposed to bring his claims before any but a medical or scientific tribunal.

Had he written to me in season I would have presented his claims to the Academy of Sciences of France, but he allowed his case to go by default, and the academy knew no more of his claims to the practical use of ether in surgical operations than I did.

CHARLES T. JACKSON, M.D.

Long's claims were, therefore, shown to rest on solid evidence. He had produced complete anesthesia by ether, which he personally administered; and he had operated painlessly on several persons four years before any one else. He had not kept his anesthetic secret but had told fellow physicians of his town and state of his work. By strange coincidence Morton did not publish his epoch making cases, but it remained for one who had not even done the operations, Dr. H. J. Bigelow, to become his mouthpiece and advocate. The next years witnessed a sad spectacle of litigation and controversy between the rival New England claimants for a bonus from Congress for the discovery of anesthesia. In this Dr. Long took no part, but a presentation of his documents by Senator Dawson of Georgia promptly killed the bill to give Morton $100,000.

That the general usage of ether in surgery came after the surgeons of the Massachusetts General Hospital had operated on persons anesthetized by Morton in October, 1846, no one will gainsay. But in this epoch-making discovery there is surely glory enough for all. No true friend of Long would try to belittle the great achievements of Morton and his surgical co-workers in Boston from which world-wide recognition of the possibility of surgical anesthesia came.

### *Benefits to Surgery and Humanity*

Before anesthesia, only thirty-four patients a year were operated on at the Massachusetts General Hospital. In five years the number had tripled, and in fifty years the increase was a hundred fold.

In the surgical textbooks before 1842 one finds described only minor procedures and emergency operations. Within ten years the changes wrought were immense; splendid new conquests over disease by surgery were reported. The advance was rapid, but not until Pasteur's great work on spontaneous generation (1862) and diseases of silkworms in 1865 and Lister's announcement of his discovery of surgical antisepsis in 1867, was the capstone placed on Long's work of fifteen years before. Surgery was delivered from the horrors of pain and infection, and, like an animal freed from a black dungeon of despair, bounded forth into the pure light of science.

Disease, now explained by the germ theory, rapidly fell before one masterful research after another, while surgeons boldly went forth to conquer the hidden terrors of the abdomen, the chest and the brain, and every corner of the human organism was finally brought under the searching rays of scientific medicine.

Without the gift of anesthesia, where would surgery be today? Accustomed as people are to behold with complacency the wonderful accomplishments of modern medicine and surgery, what a tumult would ensue were surgeons to revert again to the days of the great discoverer whose memory was celebrated in the unveiling of the splendid replica of Crawford Williamson Long.

# Making Food Attractive

## FOR THE SICK

*By*
*Lulu G. Graves*

THE sick, as referred to in this article, may include the acutely ill person who can take food only in liquid form, the person who is apparently in normal health except for physical depletion, lack of appetite or a disturbed digestion, or the patient whose digestive tract is unimpaired, but who must remain in bed after an operation while a wound heals.

Making food attractive implies more than is embodied in trite statements relative to spotless linen, shining silver, dainty china and a flower on the tray. These are highly desirable, and with the exception of the flower all are essential; more often than not a flower is an annoyance rather than a pleasure if one is eating from a tray.

### *Food Must Be Cooked Well*

To be attractive, food must be well cooked and have an appetizing flavor. Even a liquid diet can be varied and made palatable with little extra work. Broths and clear soups may be improved by the addition, during the process of cooking, of the tender blanched leaves of celery, cut pieces of the outside stalks of celery, or a bit of bay leaf, these to be strained out with the meat. If this is not feasible, celery salt may be added to the broth, but one must be sure it is a pure product.

Gruels are apt to be tasteless. A spoonful of cream, beef juice or grape juice will improve the flavor and will add to the food value; an egg yolk beaten up may be added just before removing the gruel from the fire.

Cream soups are a valuable aid in the diet. By this means green vegetables, such as peas and spinach, may be utilized. If potato or celery soup is served, a bit of parsley or watercress or a dash of paprika dropped on the top after the soup is in the bowl counteracts the colorless effect. To any of these, a spoonful of whipped cream adds to the nutritive value as well as to the appearance.

### *If Patient Dislikes Milk*

The flavor is improved in making cream soups by using the water in which the vegetables are cooked, provided they are cooked in a small amount of water, as all mild flavored vegetables should be.

When the use of liberal amounts of milk is desirable and the bland flavor of milk is objectionable, a tablespoon of orange juice, grape juice, chocolate syrup or coffee to a glass of milk overcomes this objection and gives variety. These require little extra work. If liquid milk is difficult to digest, the addition of plain gelatin (one tablespoon of gelatin to a quart of milk) is helpful in some instances. In other cases, dry milk is found easier to digest.

Eggnogs may be varied in the same way as liquid milk, or they can be made of dry milk. Combinations of fruit juices make appetizing drinks. If the juice of canned fruits is used, the

*This Is the Fourth and Last of a Series of Articles on the Sickroom in the Home*

addition of pineapple juice helps to blend and to emphasize the flavor of other juices.

Gelatin may also be used to advantage as a supplementary protein with broths and fruit juices. To make a jellied broth, one should use 1 scant level teaspoon of gelatin to 1 cup (8 ounces) of broth. These combinations of liquids are equally effective for serving between meals to the patient who needs more nourishment than can wisely be provided by his regular meals.

### *Catering to Temperament*

The patient whose digestive organs are in good condition and are functioning well, but whose appetite or temperament must be catered to, is often more of a problem than one who is ill. Such a condition usually calls for a diet that is high in caloric value yet not so concentrated that constipation may result, and it must appeal to the individual. That it is good for him or that it appeals to others may be of no consequence if it does not appeal to him. This is by no means an insignificant matter either to the patient or to the one who prepares the food. Ingenuity may be heavily taxed to provide things that will entice the patient to eat.

Fruit is of great value in this instance because it can be used in such a great variety of ways and for any meal of the day. It may be used in small amounts as a nucleus around which the rest of the meal is built, or it may be the main feature for lighter meals.

Fruit for breakfast has become a national custom since its value in the diet is so generally recognized. Methods of preserving and canning and transportation facilities have been so perfected that practically all sections of the country may have a goodly number of fruits to select from in all seasons of the year.

### *Food Fruits Part of Large Meal*

The so-called food fruits, such as apples, baked or in sauce, bananas, prunes and figs may constitute the greater part of the meal. These are good, wholesome foods that should not be scorned by any one; but, if they are scorned, serving them with cream, especially whipped cream, takes them entirely out of what might be considered by some as the plebeian class and at the same time adds to their food value.

A bit of jelly served with apple sauce or baked apple gives a touch of color that a breakfast may need. Stuffing the center of baked apples with marshmallow, raisins, nuts or a combination of these makes them seem different, and serving these fruits in combination with cereals provides a real meal. Either oatmeal or corn flakes served with baked apple, prunes or banana is a pleasing combination. Strawberries, raspberries and blueberries are delicious with cooked or with the prepared cereals.

Melons or grapefruit served as an introduction to the rest of the meal should be thoroughly

chilled, but they should not be served with ice in them. Generally speaking, the ice delivered to hospital or home is apt to have been in contact with hands or other things not sanitary during the process of freezing and delivery. Bacterial action may be inhibited while the ice is solid, but when it melts, activity may be resumed. This is equally true of ice in water for drinking. As the ice melts, the water in the fruit is unsightly and inconvenient.

Grapefruit is easier to eat if the pulp is loosened around the edges and between the sections and the center left intact. This eliminates the possible shower of juice in the face and in the eyes when the pulp is lifted out. If the center is removed, a tablespoonful of grape juice, a cube of jelly or a maraschino cherry may be dropped into the center to give color and flavor.

Berries, too, should be chilled, unless they are to be served with cereals. A few green leaves tucked in among the berries give a suggestion of coolness and freshness that is pleasing.

The pink of young rhubarb gives zest to an entire service. Another point in its favor is that it is available early in the spring before other fruits are plentiful.

### *When Eggs Are Served*

When eggs are a part of the menu, care should be taken not to cook them at too high a temperature as 13.4 per cent of the edible portion of an egg is protein and protein is toughened by a high temperature. Unfortunately, one still hears occasionally of the egg "boiled three minutes." Whether it is cooked in the shell or out (poached), the water should not boil after the egg is in it. If properly cooked, both yolk and white will be of a delicate texture and easily digested.

Omelets have a very general appeal whether plain or served with jelly, with fruit cut in small pieces or with chopped meat. They are desirable for luncheon or supper as well as for breakfast. Coddled eggs with slices of crisp bacon garnished with a sprig of parsley make a particularly good looking dish to serve as well as one good to eat.

For the lighter meal of the day or for a person whose diet must be restricted to the lighter foods, cream soups offer a means of getting much nutritive value into the menu in an attractive and easily assimilable form. Cream of carrot, cream of pea and cream of spinach soups have a delicate color and flavor that are generally liked. Cream of potato soup may have the flavor improved by a little onion juice. Cream of celery and cream of asparagus soups are of so bland a flavor that many combinations are possible; a little chicken or beef broth or a beaten egg yolk added just before removing from the fire are excellent. Cream of tomato soup is practically always sure of a welcome.

By means of a thicker sauce and by not straining the vegetable, these food materials make an agreeable serving as creamed vegetables.

A baked potato should be pricked or broken open as soon as it is removed from the oven to allow the steam to escape. Butter and paprika or parsley dropped into the opening of a hot, mealy potato will tempt the appetite.

Crisp fresh lettuce, endive, chicory and watercress make palatable salads when served by themselves, or they may be used as mediums for serving other foods. When these are not obtainable, tender, yellow leaves of celery, strips of green pepper or pimento, cups of orange or grapefruit rinds, or the shells of red apples are acceptable substitutes in serving a salad. When a pretty red apple is used in salad it may be cored and cut up without paring; the bits of red skin are attractive when mixed with other fruits.

In summer, nasturtium leaves or other leaves from the flower garden or from fruit vines may be utilized as a garnish for salads. Many such leaves have an agreeable fragrance, and they are different. A gay touch is given by a maraschino cherry; a restaurant man once said he could sell any kind of a salad if it had a maraschino cherry on it.

Cream cheese has many uses in salads, either plain or in mixtures. Its milk flavor permits of its being mixed with nuts, preserved fruits, chopped aromatic vegetables, cream or salad dressing. It is easily shaped into balls or cubes, cut into slices, mixed with jam or marmalade and dropped from a spoon onto a salad or cracker; or it may be made into a sandwich. It combines well with apple and pineapple and is acceptable with pears or grapes; tomato or celery stuffed with cream cheese is delicious.

Cured cheeses are better to combine with other foods in cooking, especially casserole dishes, but are more difficult to digest, so they should be used with caution in the menu for the sick. Cream soups, cheese combinations and nuts furnish excellent substitutes for meat. Serving creamed vegetables in timbal cases, and creamed soups with bread sticks or croutons helps to overcome the objection frequently met in regard to soft or sloppy foods.

### *Salads and Desserts*

Salads and desserts afford an opportunity for two things—adding a dainty touch to the tray, and regulating the food value of the meal. Such a variety of materials is available for both salads and desserts that they can always be attractive, and combinations having either very little or a great deal of nutritive value, whichever is needed to fit in with the rest of the meal, are possible.

For high nutritive value, combinations of eggs, milk and cream furnish the foundation. Plain custards, fruit custards, rice and tapioca custards and ice cream are the simplest. With any of these, whipped cream or beaten egg white may be served on top or mixed through the custard.

Beaten egg white served as a meringue is more palatable if cooked. If a delicate brown meringue is desired, the dessert may be placed in a hot oven or under a broiler for a short time; this will cook the egg white slightly while it is browning. Or the meringue may be dropped on the surface of hot water for an instant, turned with a pancake turner to complete the process, skimmed off and placed on the dessert. If the pan in which the water is heated is shallow and wide and if the meringue is dropped from a spoon in individual quantities, the process may be easily and quickly finished, as several "islands" of egg white may be cooked at once.

Tapioca cooked in water until clear is delicious with berries, peaches, apples, pineapple, banana or a mixture of fruits. These may be mixed through the tapioca just before it is removed from the fire. Whipped cream with it is nice, but not necessary.

Soufflés, whips, mousse of strained fruit and whipped cream or beaten egg white will usually appeal to the dainty appetite but will be an aggravation to the one that is not dainty.

Gelatin dishes are capable of even greater diversities than custards, as they may be either salads or desserts. They may utilize small amounts of fruit, vegetables or nuts if plain gelatin is used, or their nutritive value may be increased by use of salad dressings, plain or whipped cream, sauces of fruit juices or custards. When plain fruit juices are used, the mixture may be beaten before it is entirely congealed to give it a fluffy appearance. This gives the effect of having egg white or cream beaten into it. This helps when the diet is restricted.

Nuts add to salads and desserts, not only in food value, but in flavor and appearance. Though they are a concentrated food and expensive, a few nuts cut fine will go a long way.

Cocoa with a marshmallow melting as it floats on the top of the cup will delight a youngster, or any one who is young in spirit.

Good, wholesome food materials prepared with intelligence and some originality are the chief requisites in making food attractive to the sick.


## Looking Forward to August

TREATMENT OF PULMONARY TUBERCULOSIS. By Ethan Allen Gray, M.D.

DIET FOR THE AGED. By Esther Nelson, M.D.

THE NEED OF DISCIPLINE IN CHILD TRAINING. By Smiley Blanton, M.D., and Margaret Gray Blanton.

*THESE articles in themselves are good reasons for assuring yourself of the information, mental stimulation and diversion promised by the August table of contents.*

*For your convenience, an order blank is enclosed in this copy of* HYGEIA. *On this slip you may both renew your own subscription and order gift subscriptions for your friends.*

# The World War Against Disease

## An Account of the Health Work of the League of Nations

By C.-E. A. Winslow

THERE is perhaps no single field of human effort in which international cooperation is more essential than in that which relates to the campaign against disease. Three times in history, bubonic plague has spread from endemic foci in Asia to carry death and destruction to every corner of the known world. A dozen times, epidemic influenza has swept like wildfire from continent to continent. Hundreds of times, has yellow fever passed silently northward from Central America to strike down its victims in the United States.

Disease knows no limits of race or nation, and the true effectiveness of quarantine depends on a community of knowledge and of action between the nations that will permit of its establishment before, and not after, the chief damage has been done.

### *Epidemics Not Only Cause for Fight*

Nor is it only in connection with the spectacular transmission of acute epidemic disease that international cooperation is a vital need. Year in and year out, infant diarrhea, tuberculosis, pneumonia and cancer do the human race as a whole more damage than bubonic plague and yellow fever. The battle must be fought, in this case, not at frontier quarantine stations, but in every home and in every work place throughout each land.

Yet the ultimate issue of the conflict will be largely decided by the extent to which health officers, physicians, nurses and social workers in every country are enabled to apply with promptness and completeness the lessons that have been learned in every other. In this continuous warfare against the normal and everyday enemies of mankind it is as true as in the conflict with exceptional epidemics that the united force of the whole human race is none too powerful a weapon for our purpose.

### *Movement Began in 1907*

The first attempt to develop international machinery for the combating of disease was the creation of the Office international d'Hygiène publique at Paris under the convention of Rome signed, Dec. 9, 1907. This organization maintains a permanent office in Paris with a director and an assistant director and is supported by contributions from the forty countries that have subscribed to the Convention of Rome. The Office holds two conferences a year, at which each member country is represented by one delegate. It discusses, at these conferences, the modifications that may be desirable in international sanitary conventions and publishes a monthly bulletin containing the text of new sanitary laws passed by the various nations, with statistical data in regard to morbidity and mortality.

The creation of the Office was a real step forward, but neither its organization nor its financial resources were adequate for effective action. Its sanitary conventions took years to secure acceptance, so cumbrous and complex was the machinery involved; and its statistical material

was so incomplete and so out of date as to be of little more than historical interest when it finally saw the light.

The object of the creation of the League of Nations was to substitute modern, effective machinery for international cooperation in place of the awkward apparatus of a discredited diplomacy. In its provision for a newer order of things health was not forgotten.

In Section f of Article 23 of the Covenant, the members of the League agree that they "will endeavor to take steps in matters of international concern for the prevention and control of disease"; and in Section 25, "the members of the League agree to encourage and promote the establishment and cooperation of duly authorized voluntary national Red Cross organizations having as purposes the improvement of health, the prevention of disease and the mitigation of suffering throughout the world." Here was the foundation on which was at last to be built a real world organization for the prevention of disease.

### *Typhus in Eastern Europe*

In May, 1920, the Council of the League took its first step in furtherance of this purpose by the creation of a temporary epidemic commission to deal with the grave problem of typhus in eastern Europe. Typhus fever and relapsing fever had broken out in most alarming excess in Russia with the demoralization that followed on the war and the revolution, and the whole of western Europe was threatened with pestilence as a result.

The exiles who had been driven from their homes and carried as far as Siberia by the retreating armies of the Czar in 1915 were returning by thousands to their homes, and the defeated armies of Petlura and Denikin were also pouring back across the border, heavily infected with every sort of epidemic disease. Of the 20,000 men, women and children that took refuge in Poland after Denikin's defeat, 8,000 required hospital treatment, 6,000 of them for typhus and relapsing fever. In the two years, 1919 and 1920, there were 388,918 cases of typhus registered in Poland itself with 42,456 deaths.

The first health task of the League of Nations was to assist the Polish government in its front line battle against this world menace by establishing quarantine stations, equipping hospitals, controlling local endemic outbreaks by disinfection and supplying food, clothing and transportation. I had an opportunity, as a member of the advisory board of the epidemic commission, to study the situation at first hand during the month of April, 1921, and can testify to the efficiency with which the Polish health organization met the tremendous responsibilities that were placed on it. Excellent frontier quarantine stations were established at Baranowicze and Rovno, the former having isolation quarters for 10,000 persons. One hundred and twenty-nine new hospitals, aggregating nearly 9,000 beds, were established by June, 1920, some in old barracks, some in commandeered chateaux, some in new frame shanties, many of them imperfectly equipped, as we saw them only six months after the retreat of the Bolshevik armies, but meeting the situation in a fashion adequate to the emergency.

### *The Polish Campaign*

Everywhere, through the primitive villages scattered over the rolling country and hidden in the forests of the Vilna-Grodno region were the disinfecting units, stamping out centers of infection as soon as they were introduced. The Polish authorities deserve the primary credit for what was accomplished, but victory could scarcely have been secured without the aid furnished by the epidemic commission of the League, which gave its active cooperation throughout the campaign and through which agency the nations of the world contributed about $800,000 for the prosecution of the work.

Meanwhile, the assembly of the League, at its meeting, Dec. 10, 1920, had authorized the establishment of a permanent health organization as a part of the machinery of its secretariat.

In accordance with the general policy of the League, which contemplates the fullest cooperation with all other agencies for international action, it was provided that the Office international at Paris should become the advisory council of the League on health matters and that it should designate one half the members of the health committee of the League, the body to be created as the active agent in the work of the new health section.

The authorities of the Office were of course heartily in favor of this plan, and an organization meeting of the new health committee was called for May 5, 1921, in Paris, immediately following the spring meeting of the Office at which the Office delegates to the committee were to be appointed. Bernard of France, Buchanan of Great Britain, Lutrario of Italy, Suiki of Japan, Carozzi representing the International Labor Office, and myself, representing the League of Red Cross Societies, met that afternoon at 35 rue Vernet, to find that the whole project was trembling on the verge of ruin.

### *The United States Stood Aloof*

This was the period when the United States was not only outside the League but actively hostile to it, and when our state department refused even to answer communications from Geneva. In this spirit our government had given notice that it disapproved (as a signatory to the Convention of Rome) of any cooperation between the Office and the League. Therefore the Office had been forced to abandon its nomination of members of the health committee.

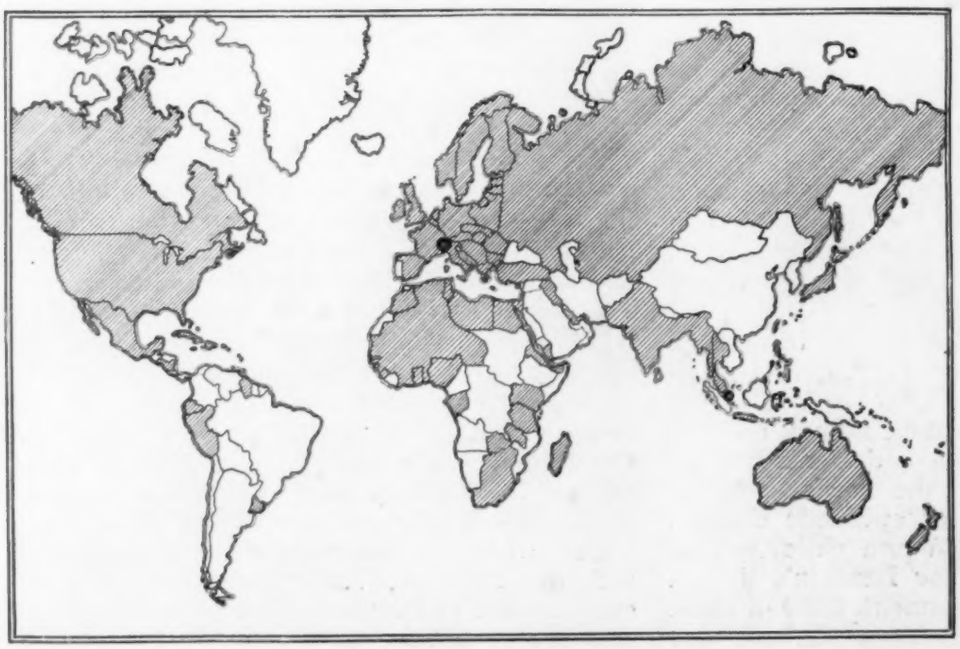
The decision was like a bombshell hurled into the group that had been laboring for months for international effort. The Italian delegate said that he had been named by his government to join in the work of a committee working with the Office; there was nothing to do except to go home. Even Sir George Buchanan, who had been almost the father of the whole League health program, gave up hope and proposed that we go back to the beginning and call an international sanitary convention to start the whole enterprise afresh.

Bernard, however, fought persistently and resourcefully; and at last in a second informal meeting, May 6, we succeeded in getting those present to unite in a recommendation to the League that, in face of the urgent need, at least a provisional health committee and a health secretariat should be established, Office or no Office, United States or no United States.

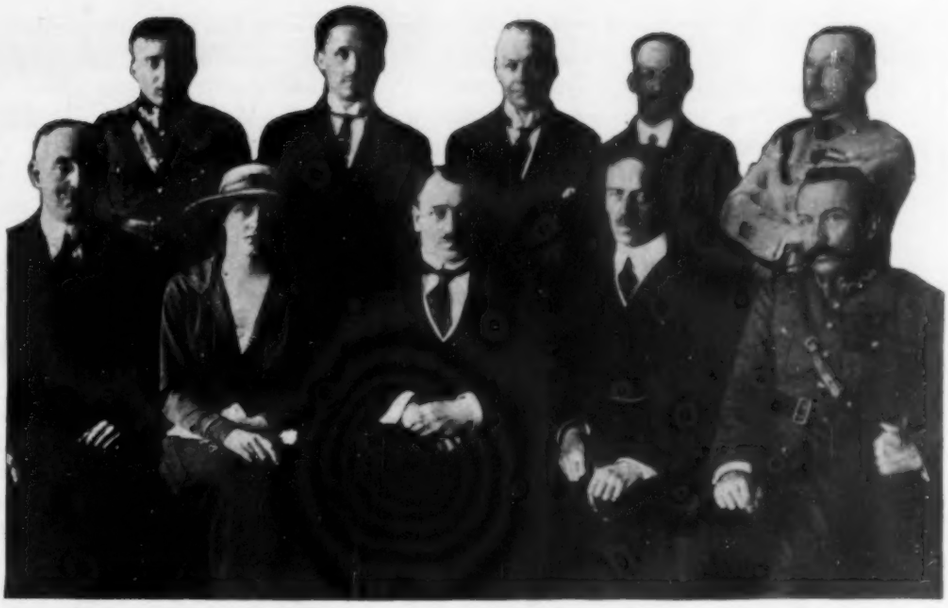
As a result of this action the council of the League, June 22, 1921, authorized the creation of a provisional health committee, which held its first meeting, August 25, and organized by the election of Dr. Thorvald Madsen of Denmark as chairman. The original plans for the organization were dramatically torn up by one of the members in the morning, but thanks to the fact that the president of the Office and its leading officials were present in their individual capacities and were one and all united in their desire to secure cooperation, these plans were put together again in the afternoon.

### *Our Country Is Represented*

After a four day session it was determined to carry out the whole project as originally outlined, by unofficial agreement, pending a time when the United States should assume a different attitude. That time happily came, October, 1923, when the Office was permitted to ratify the agreement with the League exactly as projected nearly four years before. Furthermore, the United States has now two representatives on the League's health committee, Surgeon General H. S. Cumming of the U. S. Public Health Service and Dr. Alice Hamilton of the Harvard medical school.



*This is a map of the epidemiologic intelligence service of the League of Nations. Cross-notched areas indicate countries from which current reports are regularly received in regard to the prevalence of epidemic disease. Black circles indicate the central office of the League at Geneva and the branch office at Singapore.*



*Advisory board of the epidemic commission of the League of Nations, Warsaw, 1921. Left to right, standing: Wrogynski, Poland; Frick, Switzerland; Madsen, Denmark; Rajchman, Poland; Gauthier, France. Sitting: Winslow, U.S.A.; Dame Rachel Crowdy, England; Chodzo, Poland; White, England; Godlewski, Poland.*

The health organization of the League consists then, at present, of three distinct parts: the advisory council, the health committee and the health section of the secretariat. The advisory council is the committee of the Office international at Paris. The health committee of the League, which acts as the counselor of the League on all health matters and directs the work of the health section, is composed of from sixteen to twenty members, ten nominated by the Office and from six to ten by the League. Finally, the health section is an integral part of the permanent secretariat of the League operating under the supervision of a director, Dr. Ludwik Rajchman of Poland. Both Madsen and Rajchman were members of the advisory board of the epidemic commission that reported on the typhus campaign in Poland, and their photographs are included in the group reproduced.

The epidemic commission itself was of course absorbed in the new health section of the secretariat in 1921. In 1921-1922, the war against typhus was carried into Russia itself (the Soviet health officials, though not members of the health committee, cooperating actively with it). Both typhus and cholera, which raged to the extent of 200,000 reported cases in Russia in 1921, have now been brought down to what is practically a normal figure; and Europe is freed from any present danger of widespread epidemic disease.

### *Caring for Refugees*

In 1922, the epidemic commission of the health section was called on to cope with grave sanitary problems created by the million or more destitute refugees that poured into Greece as a result of the Turkish war. Sixty per cent of these refugees were promptly protected by vaccination against smallpox, cholera and typhoid and what promised to be a devastating epidemic was reduced to a minor one.

Since that time sleeping sickness in equatorial Africa and malaria in Russia, Dalmatia and Greece have been studied by special commissions organized for the purpose. At last, the resources of the best sanitary knowledge to be obtained throughout the world are available for service, wherever a special menace of epidemic disease may make itself felt.

The health section, however, like the other branches of the League secretariat, performs its most important service in the systematic work of prevention, rather than in dealing with emergencies that have already arisen. What may be considered as perhaps its primary objective is the marshaling of continuous and up-to-date records of all communicable diseases so that epidemics may be checked in their inception or promptly limited by adequate quarantine procedures.

Its epidemiologic intelligence service has been so effectively organized that vital statistics from nearly the whole of the civilized world are received at Geneva and printed and distributed each month. For the first time there is available a picture of the world prevalence of communicable and other diseases which is invaluable not only for the health administrator but for every student of preventive medicine. A branch office of the epidemiologic intelligence service has been established at Singapore to deal with the specially pressing problems of the Far East, and through this center information in regard to the prevalence of the more serious epidemic diseases is exchanged by telegraph and cable.

### *Trying to Standardize Vital Statistics*

The health section is also laying a basis for a more general comparability of the vital statistics of various countries by the organization of groups of statistical experts to study and report on divergent national procedures and to secure a program of joint action in the direction of uniform practice.

Knowledge of the facts has already begun to open the way for definite and important action in regard to international quarantine. Special bilateral sanitary conventions have been drawn up between Poland and Czechoslovakia, Germany, Latvia, Roumania and Russia, respectively, and between Latvia and Russia, Austria and Serbia and Bulgaria and Serbia as a result of a sanitary conference called by the League in 1922. The haphazard and blind efforts of individual nations to combat world-wide disease have been transformed into a continuing and coordinated campaign by the agency of the health organization of the League.

The problem of standardization of divergent national practice is being solved by the health section in quite a different but an exceedingly important field, that which relates to the use of serums and vaccines for the prevention and the cure of microbic disease. Just as statisticians in England call bronchitis what is called pneumonia in the United States and bronchopneumonia in Uruguay, so bacteriologists in different countries have employed different procedures in preparing diphtheria and tetanus antitoxin and similar products and have used different methods of measuring their potency.

In 1921, the health section of the League called an international conference to discuss this problem and through later meetings and the work of several active committees substantial progress has been made in the standardization not only of serums and vaccines but of various important drugs, such as arsphenamine and insulin.

In still another direction the health organization of the League has paved the way for better coordination of the world public health campaign, through its provision for the so-called interchange of sanitary personnel. Uniform statistics and standardized procedures are important, but even more vital perhaps is the mutual understanding and helpfulness that comes from the personal contact of the health workers of different countries.

In the autumn of 1922, twenty-three sanitary officials from eight different countries were given an opportunity to study health organization in Belgium and Italy; in 1923, twenty-nine officials from seventeen countries visited Austria and England for the same purpose; and in the autumn of 1923, twenty-four officials from eighteen countries were brought by the League to the United States (on the invitation of Surgeon General Cumming) to spend ten weeks in the study of various aspects of health work in this country. In 1924, there were four more such general interchanges provided in Great Britain, Holland, Denmark and Switzerland, respectively.

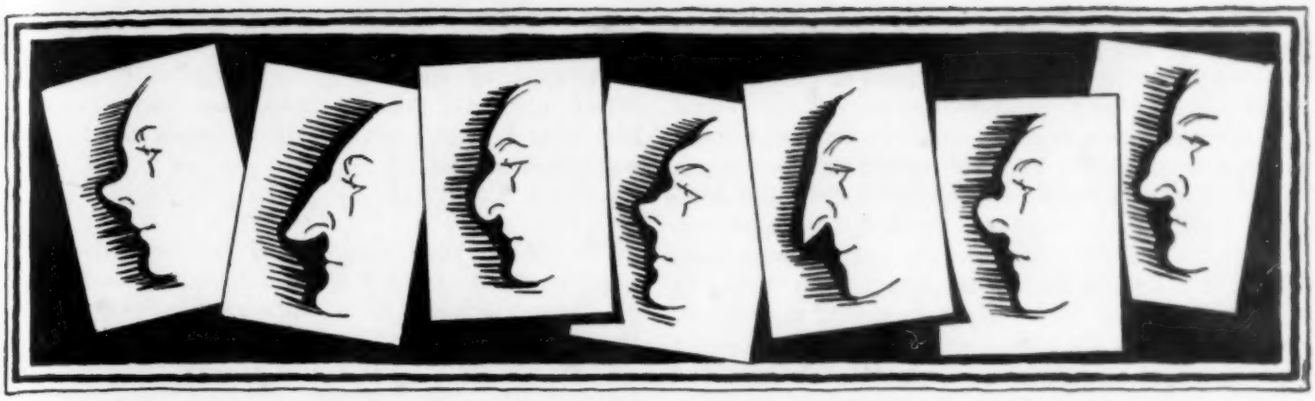
It seems likely that the provision of such opportunities for the international study of public health problems will form a permanent and highly important part of the work of the health section.

Aside from its four main lines of service—epidemic control, epidemiologic intelligence, standardization of biologic products and interchange of sanitary personnel—the health organization has already proved its value along a dozen different lines of special activity. In cooperation with the League committee for communication and transit, it has prepared a model convention for the sanitary control of traffic on waterways. It has rendered substantial assistance to the League opium committee in its important work. It has conducted fundamentally significant studies on cancer, tuberculosis and anthrax and has collected invaluable data on the "patent medicine" evil and on the methods employed for the teaching of hygiene in different countries.

As Prof. Leon Bernard, a member of the health committee since its foundation, has said: "The brief but fruitful past of the health committee is the guarantee of its future. It is through its organizations of experts that the League of Nations will exert its chief influence on the conscience of the world. Among these technical organizations none can do more to promote concord among the nations than that which is devoted to the defense of their health against the dangers that threaten them. As the full coordination of such efforts is at last realized there will dawn a new era in the progress of international health work."

The United States as a government is of course in the position of benefiting like the rest of the world from these beneficent activities of the League without sharing in its financial support. It should, however, be a source of great gratification to us as Americans that the International Health Board makes generous contributions for the support of the epidemiologic intelligence service and the interchange of sanitary personnel, and that Americans have from the beginning played an important part in the work of the health committee and the health section. As a people, if not yet as a nation, we have beheld the vision of the poet:

> See! In the rocks of the world
> Marches the host of mankind,
> A feeble, wavering line.
> Where are they tending?—A God
> Marshall'd them, gave them their goal.
> Ah, but the way is so long!
> Years they have been in the wild!
> Sore thirst plagues them, the rocks,
> Rising all round, overawe;
> Factions divide them, their host
> Threatens to break, to dissolve.
> —Ah, keep, keep them combined!
> Else, of the myriads who fill
> That army, not one shall arrive;
> Sole they shall stray; in the rocks
> Stagger for ever in vain,
> Die one by one in the waste.



*It is best to leave well enough alone when it comes to noses. Surgical attempts at improving their shape are full of risk.*

# Cosmetic Surgery *of the* Nose

By JOSEPH C. BECK

*This article is the fourth in a series on Plastic Surgery*

PRIDE in personal appearance and the desire to look well often lead people into all sorts of false notions. Some persons will look at the mirror until the mirror is figuratively sick of looking at them. Then minor or nonexisting imaginary nasal deformities loom up as monstrous. The possessor of the nasal deformity becomes obsessed with the idea that it must be corrected.

In former years cosmetic nasal surgery was in the hands of the out and out advertising quack doctor. Since the World War a number of reputable physicians have taken up this work, feeling that it is the privilege of a person to have his features changed if he so desires and that such an operation should be done in a safe and surgically clean manner. While the argument is in a measure correct, the results of such cosmetic operations in the majority of cases have been disappointing.

The person who contemplates indulgence in plastic correction should seek a surgeon who will have the welfare of his patient sufficiently at heart to refuse to do the work unless there is good reason to warrant its being done.

### *Legitimate Plastic Surgery of the Nose*

There are, of course, occasionally, good reasons for performing plastic operations on the nose, but these reasons are physiologic as well as cosmetic. Social and economic conditions may be such as to necessitate a plastic operation.

For example, a young woman has a stage career in view. She is endowed with a good voice, is a splendid actress and is perhaps an understudy in an operatic company. Her nose has a pronounced hump, and she has been told by the manager that were it not for that defect, he would prefer her to the star; in fact, he has promised to advance her to this position if correction is made. She is operated on and secures an economic satisfaction and a happiness possibly otherwise unattainable.

Another young woman has a nose whose proportions are but slightly deviated from the normal. It is, nevertheless, a source of undue worry to her. She is always talking about it and every one in her home is miserable because she is always depressed. She refuses to go out in company or take part in other activities. The slight deformity is corrected by a minor operation. The result is a striking mental and social change.

### *Artificial Noses*

In cases of collapsed nostrils, widening will induce physiologic response, so that the person breathes better and the appearance is improved.

Finally, in cases in which parts or the whole of the external nose is missing, there is great improvement anatomically, physiologically and mentally when the parts are reconstructed. On the whole, this class of cases is the most satisfactory to treat. When correction is attempted by means of surgery, which in many instances is successful, it may become a hardship, owing to the fact that many operations are required in order to get even a fair looking nose, whereas by the use of an artificial nose much of this

suffering may be avoided and much expense on the part of the patient saved.

The replacing of the absent part or parts by an artificial substance is known as prosthesis. Until recently, substances such as aluminum and hard rubber were used. As in all metallic substances, there was in these no elasticity so that the artificial part did not conform well to the surrounding parts either in function or appearance. Then, too, spectacles, in the case of an artificial nose or ear, had to be worn in order to support them. Much difficulty, too, was experienced in trying to get these substances to hold the color of the surrounding skin in order not to have them appear too unnatural. At their best, the results were seldom liked by the patients, because instead of hiding a deformity or defect they sometimes made it more conspicuous.

Physicians now have a substance which represents more nearly the normal and which has proved most satisfactory. It is a simple gummy substance, which is molded after a model made for the patient. This molded part is colored in its raw state to match the patient's skin. The prosthesis, when finished, is made to blend with the patient's own skin and leaves little trace of its borders. This method is popular because of its simplicity, economy and not too great inconvenience.

### *Common Deformities of Nose*

The commonest types of deformities are:

1. Humped nose.
2. Saddle or flattened nose.
3. Long nose with a large dropped tip.
4. Short nose, especially at the tip, with narrow or collapsed nostrils.
5. Large bulbous tip of the nose with very wide nostrils.
6. Short nose with markedly upturned tip.
7. Marked twist or double twisted nose with or without a hump.
8. Nose all out of shape and other deformities about the face, usually following injuries.
9. Partial or total absence of nose.
10. New growths or tumors, necessitating removal, and being followed by a defect.

It would no doubt be of interest to read the methods of procedure used to correct these various deformities, but such a description would be most technical. Rather, let us consider some of the dangers and complications that may and do result from such work. Since these may occur even in the hands of the best trained and most conscientious surgeons, how much more likely are they to occur in the hands of the unskilled and of the quacks.

In former times when paraffin was employed, especially by the charlatans, many persons requested of their regular physicians urgent relief, not only for the resultant disfigurement but also for the severe pains associated with paraffin tumors.

### *The Case of Miss N.*

Miss N., in 1905, considered that her nose was not the shape that it should be. She found in a Chicago newspaper an advertisement for easy cosmetic operations without pain. She was a Swedish working girl and had been only a short time in this country; she worked hard to save money enough to go to Chicago from Minneapolis to have the work done.

Although the girl had a nice looking nose, paraffin was injected into the bridge; the paraffin spread into her eyelids and the sides of her cheeks, where it hardened, causing a bluish discoloration and pain. Later, these masses began to grow and caused her severe pains throughout the face, eyes and head.

Several months later, her Minneapolis physician referred her to a Chicago surgeon. She was in a pitiful condition not so much as regarded appearance but rather on account of physical and mental suffering. It became necessary to operate extensively on her nose and face to remove the hardened masses. These masses of paraffin surrounded the nerves of the face and caused severe pain and whiteness about the face and eyes.

### *Appearance Ruined for Life*

The defects caused by this operation were covered successfully by temporary grafting from the arm to the face; this was necessary in order to obtain a sufficient amount of skin. The result was all that could be hoped for surgically, although the woman's face is ruined for the rest of her life so far as appearance is concerned. However, she became comparatively free from pain.

The nose flattened out following the operation and was a source of distress to the patient. She was desirous of obtaining improvement by means of building up the bridge of the nose. Two attempts were made. In one instance cartilage was implanted and later ivory, but surgeons could not secure a perfect result. The implanting of the ivory added to her trouble, in that following the extrusion an opening remained. It is now healing, but very slowly, because of the poor nourishment of the tissues.

# Long Distance Quackery

## *The Rise and Fall of Some Kansas City Mail-Order Frauds*

*By*
*ARTHUR J. CRAMP*

UNTIL recently, Kansas City, Mo., had the unenviable distinction of harboring some of the worst medical mail-order frauds in the country. Thanks to the activity of the post office department, cooperating with the division of collaborative investigation of the bureau of chemistry, Department of Agriculture, Kansas City's disgraceful preeminence in this field is waning.

During the past few months many of these concerns have been debarred from the use of the United States mails through the issuance of fraud orders, and recently a number of the persons who made their thousands out of this form of quackery have been indicated by the federal grand jury.

### *Melton Laboratories*

For two or three years a number of newspapers and magazines of easy advertising virtue have carried large advertisements of an alleged sex rejuvenator put out by a Kansas City concern having the imposing name, Melton Laboratories.

As is invariably the case, these so-called laboratories were not laboratories at all. They were not even manufacturers; they were merely mail-order concerns, which employed neither chemists nor physicians, but bought their drugs of pharmaceutical houses that are less concerned with the good name of pharmacy than they are with profits.

The Melton Laboratories exploited the sick—and those who thought they were sick—by means of quackish claims; they were run by one H. M. Stunz. As huge profits rolled in, Stunz took various members of his family into the scheme and created a number of "paper" companies, subsidiary to the Melton Laboratories, for the purpose, so the federal authorities are said to have claimed, of avoiding the payment of high income taxes.

In the last year of its existence the Stunz concern did a gross business of $400,000, of which $200,000 had been paid out to newspapers and magazines. This is the usual situation. The medical mail-order swindler is able to operate and to get his victims because newspapers and magazines will furnish, for a consideration, the point of contact between the sick and the swindler.

The Melton Laboratories carried full page advertisements in a number of newspapers. A Washington, D. C., paper that calls itself an "American Paper for the American People" carried at least one full page; a Boston publication posing as "A Paper for People Who Think" got another full page; "The People's Paper" in Buffalo and a Chicago paper whose slogan is "Truth—Justice—Public Service" also got full pages. And, of course, there were many, many more.

The nostrum put out by the Melton Laboratories was called Korex. It contained a little yeast, a little nux vomica and minute amounts

**Awaken Your Glands and Nerves and Regain the Vigor of Youth in 24 Hours!**

Thousands Tell of Being Rejuvenated and Invigorated by a Remarkable Medical Discovery—Men 60 to 80 Years Old SayThey Are Now "As Good As New"—Many Report Surprising Evidence of Improvement

WOULD you like to experience again the thrill of youthful vigor, energy and ambition? Would you like to know what it means to have a surplus of vitality—an eagerness for every task—a fresh youthful interest in all that makes life really worth living? Then avail yourself of the wonderful secret recently revealed by science. Awaken your dormant glands and nerves and be "young" again.

Aged Folk Report Rejuvenations; Young Tell of Being Invigorated

Discovered by Famous Scientists

Wonder Working Glands

Here is the Proof

Money-Back Guarantee

A Word About Free Sample

MAIL THIS COUPON Now and Be Convinced

MELTON LABORATORIES, 1672 Melton Building, Kansas City, Mo.

*This is a reproduction of a typical full-page advertisement of the Melton Laboratories fraud.*

What a Kansas City Bank Says About Us
Re-Energize Your System
and Laugh at the Years!
A NEW Medical Compound With a Remarkable History
Why Not Get All You Can Out of Life?
Turn to next page and read the story of
HIOBIN
THE HIOBIN COMPANY

*A reproduction, greatly reduced, of part of one of the Hiobin advertising circulars.*

of two other drugs of no great importance. Stunz then had a little iron and a laxative added to Korex, and christened the new mixture Hiobin, and created a "paper" company, the Hiobin Company, to exploit it. He brought out a kidney cure that he called Renex, sold by another "paper" organization known as the Renex Company. This last named nostrum contained kidney irritants that might seriously damage those suffering from kidney disease.

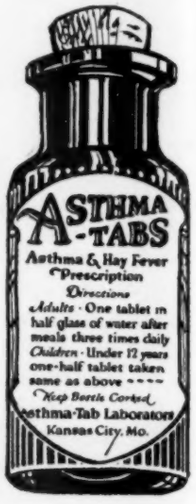
Korex, sold by the Melton Laboratories, had for its address the Melton Building. Hiobin, sold by the Hiobin Company, came from the Hoffman Building. Renex, sold by the Renex Company, came from 322 East 13th Street. Actually all three addresses were the same place—three fraud factories in one.

In August, 1925, the postal authorities issued a fraud order against the Melton Laboratories, the Hiobin Company and the Renex Company, but, unfortunately, they did not extend the fraud order to cover the personal mail of the members of the Stunz family that had made money out of these frauds. On April 29, 1926, however, Kansas City papers recorded that indictments had been returned by the federal grand jury against Harold Melton Stunz; his wife, Bessie Stunz; his father, Conrad Stunz, and his two brothers, Walter D. and Ray Stunz.

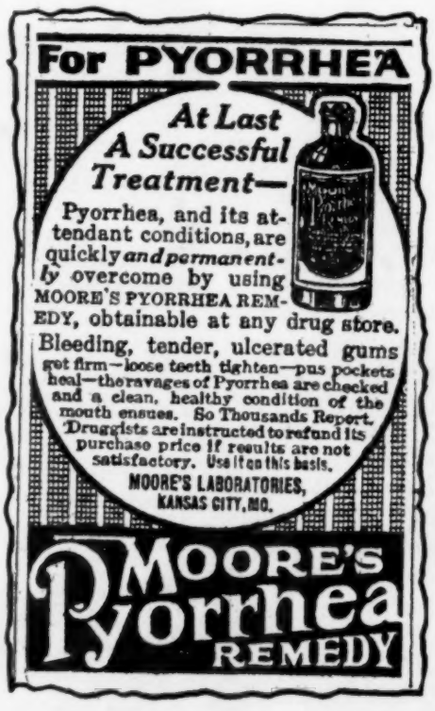
It is said that Harold M. Stunz built and furnished a house that cost $97,000; this was the House that Quack Built!

### *Asthma-Tabs*

Another self-styled laboratory, which was no more a laboratory than it was a cathedral, was the Asthma-Tab Laboratories Inc. of Kansas City. The chief men behind Asthma-Tab were said to be F. W. Osborne and T. N. Roby. Osborne was connected with an advertising agency—the Manke-Osborne Advertising Company—and also with a printing concern. As printing and advertising, rather than a knowledge of medicine or drugs, are the main requirements of a successful fraud of this type, it was natural that these persons should be successful in their quackery.


ASTHMA-TABS
Asthma & Hay Fever
Prescription
Directions
Adults · One tablet in half glass of water after meals three times daily
Children · Under 12 years one-half tablet taken same as above
Keep Bottle Corked
Asthma-Tab Laboratories
Kansas City, Mo.

Asthma-Tabs was, of course, sold as a cure for asthma. It was analyzed in the chemical laboratory of the American Medical Association more than a year before the government investigated the concern, and the product was found to consist of potassium iodide and a salt of arsenic. The Asthma-Tab Company had about twenty employees, but no physician, chemist or pharmacist—chiefly girls whose business it was to mail out the "come on" literature. They placed their advertising through the Manke-Osborne advertising concern. Asthma-Tabs took in about $80,000 a year, of which approximately one half was spent for advertising, the share that newspapers and magazines got for helping this concern swindle the public. On Dec. 12, 1925, the government closed the mails to this fraud; on April 29, 1926, Kansas City papers reported that Francis W. Osborne and Edward H. Manke had been indicted.


For PYORRHEA
At Last
A Successful
Treatment—
Pyorrhea, and its attendant conditions, are quickly and permanently overcome by using MOORE'S PYORRHEA REMEDY, obtainable at any drug store.
Bleeding, tender, ulcerated gums get firm—loose teeth tighten—pus pockets heal—the ravages of Pyorrhea are checked and a clean, healthy condition of the mouth ensues. So Thousands Report.
Druggists are instructed to refund its purchase price if results are not satisfactory. Use it on this basis.
MOORE'S LABORATORIES,
KANSAS CITY, MO.
MOORE'S
Pyorrhea
REMEDY

*A typical newspaper advertisement of the Moore's Pyorrhea Remedy fraud.*

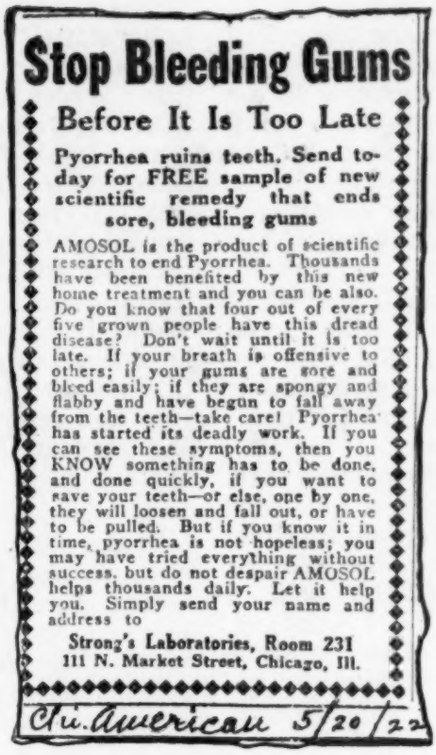
### *Moore's Pyorrhea Remedy*

The Moreham Company of Kansas City, Mo., which went under the names Moore's Laboratories and Moore's Medicine Laboratories (there were no laboratories), sold a fake cure for pyorrhea, Moore's Pyorrhea Remedy. The business was started by a Fred Hamilton and was extensively advertised through an advertising agency that was also operated by Hamilton.

The nostrum when analyzed by the federal chemists was found to consist essentially of coal-tar cresol emulsified with rosin soap. It was shown at the hearing that the nostrum would not cure pyorrhea; it

would not cause "receding, inflamed and bleeding gums" to become "firm and pink" as was claimed; it would not "tighten loose teeth," nor would it "conquer pyorrhea" by causing the germs to "just clump right up and quit the job."

On Aug. 27, 1925, the government issued a fraud order debarring from the use of the United States mail the Moreham Company, Fred Hamilton, Moore's Medicine Laboratories Inc. and Moore's Laboratories.


Stop Bleeding Gums
Before It Is Too Late
Pyorrhea ruins teeth. Send today for FREE sample of new scientific remedy that ends sore, bleeding gums
AMOSOL is the product of scientific research to end Pyorrhea. Thousands have been benefited by this new home treatment and you can be also. Do you know that four out of every five grown people have this dread disease? Don't wait until it is too late. If your breath is offensive to others; if your gums are sore and bleed easily; if they are spongy and flabby and have begun to fall away from the teeth—take care! Pyorrhea has started its deadly work. If you can see these symptoms, then you KNOW something has to be done, and done quickly, if you want to save your teeth—or else, one by one, they will loosen and fall out, or have to be pulled. But if you know it in time, pyorrhea is not hopeless; you may have tried everything without success, but do not despair AMOSOL helps thousands daily. Let it help you. Simply send your name and address to
Strong's Laboratories, Room 231
111 N. Market Street, Chicago, Ill.
Chi. American 5/20/22

### *Amosol*

Another pyorrhea cure emanating from Kansas City and sold on the mail-order plan was known as Amosol; it was marketed by a concern that, of course, called itself a laboratory—the Strong Laboratories. A little while before the fraud order was actually issued the concern was moved to the village of Liberty, Mo., which is about thirteen miles from Kansas City.

The Strong Laboratories was a trade name used by Henry Strong Smith and his wife Lourania. Smith got his idea from the fraudulent business of the Moore Pyorrhea Remedy. He procured a sample of the Moore nostrum, had it analyzed, and then prepared a formula from which Amosol was made. He also copied the advertising literature; thus showing that, while there may be honor among thieves, there is not, apparently, among mail-order quacks!

In the Amosol advertising matter, a Dr. Strong was frequently referred to. There was no such person. Some of the form-letters sent to prospective victims were signed L. Foree Nourse. This, it seems, was Mrs. Smith's maiden name and was used rather than the name Smith, because it was more classy.

The government declared the business a fraud, and on Jan. 16, 1926, debarred it from the use of the United States mails.

### *The Burgess-Johnson-Webb Syndicate*

The most impudent and probably the most extensive of medical mail-order frauds recently emanating from Kansas City was the syndicate of fakes conducted by Ward H. Webb, W. W. Burgess and Linn D. Johnson. These quacks fleeced the public from nearly every possible medical angle.

Under the name of Dale Laboratories they sold Virex, a fraudulent cure for deafness; Dale's Wonderful Stomach Remedy, a fake cure for stomach trouble, and Dale's Kidney Prescription, a kidney cure humbug.

Under the trade name King's Laboratories, they conducted a pyorrhea cure swindle; as the Hilton Laboratory, they sold Hilton's Vitamin to Make You Fat; under the name Warren Laboratories, they sold a group of fake beauty preparations; as the Webb Chemical Company, they defrauded asthmatics with the Webb Combination Prescription; under the name Walker Institute, they exploited those with prostate trouble—Walker's Prostate Specific; under the name Restorex Company, they sold Restorex Tablets, a "weak man" remedy; while they humbugged rheumatics with the Three Way Combination Treatment, sold by the Three Way Chemical Company.

These are only a few of the twenty-seven schemes that have been operated through the mails by the Burgess-Johnson-Webb syndicate.

Needless to say, no physicians were employed by these quacks. Virex, the so-called cure for deafness, was originally put on the market by C. H. Greene, who placed his advertising through

Asthma can be stopped in 4 minutes-Try It
The World's Greatest Asthma Treatment
Regular $7.50 Treatment for 10 Days Only $3.70
New Beauty Can Be Yours in Only 20 Minutes—Expert Tells How!
$4.00 Supply Now only $1.79
WARREN LABORATORIES, Gateway Station, Kansas City, Mo.
You Can Gain as Many Pounds as You Want
SEND NO MONEY for This $4.00 Supply
$2.10
HILTON LABORATORIES, Gateway Station, Kansas City, Mo.
PYORRHEA
Can Be Stopped!
Look! What Pyorrhea Will Do Unless You Stop It NOW
$3.00 Supply Now only $1.95

*Facsimiles of the advertisements of four of the many medical swindles exploited by Burgess, Johnson and Webb under the names of the Webb Chemical Company, Warren Laboratories, Hilton Laboratories and King Laboratories, respectively.*

the Gray Advertising Agency, conducted by Burgess, Johnson and Webb. Greene first called his stuff Rattlesnake Oil and later K-17. Getting behind in his advertising payments to the Gray concern, the Burgess-Johnson-Webb group entered into an agreement with Greene to put out a similar product under the name Virex. This they did, incorporating in their advertising and literature a number of testimonials that had been furnished for K-17.

Virex consisted mainly of benzol, neat's-foot oil and oils of eucalyptus, camphor, wintergreen and mustard. There were also sold with the treatment some laxative tablets and some tablets to make a nasal douche. As a cure for deafness, Virex was utterly worthless.

Webb's Famous Prescription, the asthma cure, was chiefly potassium iodide with a nebulizer fluid containing novocaine, atropine sulphate and glycerin. Under the trade name Warren Laboratories, Burgess-Johnson-Webb sold a complexion treatment known as Clear-Plex. This was to be applied externally and contained the dangerous poison corrosive sublimate (bichloride of mercury), together with salicylic acid and other ingredients.

One of the testimonials for this purported to come from "David H. Reeder, M.D." Reeder is not an M.D., but a mail-order quack in his own right, who evidently can be hired by other quacks when the occasion arises.

Hilton's Vitamines was the mail-order name of their "make-you-fat" preparation. The government showed that at least 86 per cent of the ingredients of Hilton's Vitamine Tablets contained no vitamins, and the remaining portion contained very small percentages.

The amount of vitamins that would be obtained by taking from two to six of the tablets daily, as suggested, would be negligible compared with the amount obtained in the ordinary daily diet.

The cure for prostate trouble, of course, contained nothing that would cure this condition, but it did contain methylene blue, which has the effect of giving a bluish tinge to the urine. The victim was urged to notice the change in the color of the urine, and was told that this color was evidence that the "antiseptic ingredients in the tablets are reaching the seat of your trouble." The use of methylene blue by mail-order quacks is an old trick.

Burgess, Johnson and Webb also sold King's Combined Pyorrhea Treatment, which was quite similar to the fakes sold under the names Strong Laboratories and Moore's Medicine Laboratories.

In February, 1926, the government issued a fraud order covering many of the Burgess-Johnson-Webb frauds, including the Dale Laboratories, Webb Chemical Company, Hilton Laboratories, King Laboratories, Walker Institute, Warren Laboratories and Burgess-Johnson-Webb Corporation.

Unfortunately, the government did not issue a fraud order against the personal names of Webb, Burgess and Johnson. Justice may yet be done, however, as, April 29, 1926, Kansas City papers reported that the federal grand jury had returned indictments against Warren W. Burgess, Linn D. Johnson and Ward H. Webb.

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In the study of the medical mail-order business, one or two things stand out above all others. First, there is usually an unholy alliance between these quacks and some advertising agency. Not infrequently men who start out as advertising agents and solicit the accounts of fraudulent medical mail-order concerns have themselves gone into the medical mail-order business. For advertising men know that in exploiting medicines on the mail-order plan, no knowledge of medicine or pharmacy is necessary: The only knowledge requisite to success is that of writing plausible "come-on" literature.

The medicaments are the least important factor in the business. They can always be purchased from pharmaceutical houses that are not above sharing the profits in this form of charlatanry. Some pharmaceutical houses, in fact, will furnish a "formula" for any given group of conditions that the mail-order quack wishes to "specialize" in.

Another point that stands out is that the newspapers and magazines that accept the advertising of fraudulent medical mail-order concerns get about one half of the gross profits of the business. In other words, they make more money in this form of swindling than do the swindlers themselves. And under our present laws it is a perfectly safe game.

The medical mail-order swindler may be, although he seldom is, sent to the penitentiary for his swindles. The newspapers and magazines which have furnished the contact between the swindler and the sick, which have made it possible for the quack to defraud the public and which have made more money out this business than the quack himself go unscathed!

# Good Posture As an Aid to Beauty

A PERSON with perfect posture is rarely seen. With good posture an otherwise plain person becomes distinctive and is lifted out of the ordinary. Although good health may sometimes exist in spite of poor posture, it is so only because of the power of accommodation to abnormal conditions with which the body is endowed.

All women, to say nothing of the men, wish to appear at their best. Fine raiment will do much to enhance what natural charm and grace they have, but how much more easily they could attain that goal if they would carry themselves well.

Beauty is defined as "a quality or combination of qualities which gratifies the eye or ear, or which delights the intellect or moral sense by its grace or fitness to the end in view." Correct posture is by no means one of the minor qualities that enters into the combination to make the final one of beauty. How often it is said of this woman or that man who, although not pretty or handsome, still carries himself well, that he has a certain style about him. If we analyze such persons more closely we will find that they have correct posture; they stand at ease, and have a graceful and correct way of walking. Such persons are usually "peppy" and never appear tired.

Certain persons are born with this desirable attribute, but it can be acquired. Many times persons who complain of being tired toward the end of the day and who consult a physician thinking that they are suffering from some obscure disease are restored to normal by certain routine daily exercises and by gradually correcting their habits of posture.

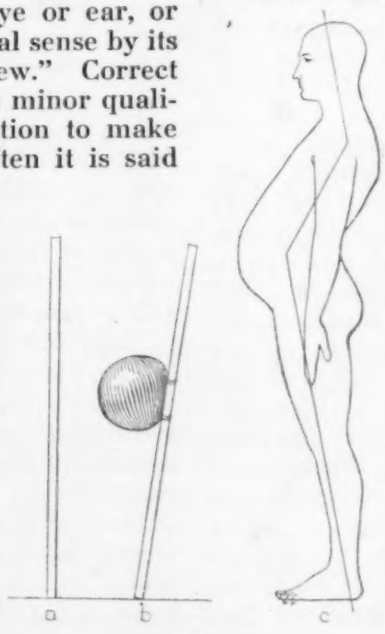



*Fig. 1.—Effect of large abdomen on posture: a, pole, which is easily balanced because weight is distributed evenly; b, difficulty caused by weight on one side; c, awkward pose forced by large abdomen.*

The flapper slouch assumed by so many of our young girls cannot but be an eyesore and irritation to all who have any regard for body mechanics. Fortunately styles and customs of this type are gradually relegated to the scrap heap. The tight corset of twenty years ago has gone never to return, and the flapper slouch is, we hope, assured of the same end.

Those who have good posture, in addition to its increasing their attractive appearance, are more likely to have good health than those who have poor posture. Brown, some years ago, examined a large number of Harvard University students and found that headache, constipation and general ill health were much more common among those with poor posture than among those with good posture. It was surprising how few of these young men really carried themselves properly.

The increasing popularity of schools for physical training shows that there is a real demand for teachers to instruct young people in healthy athletics and exercises. Although athletics does not always lead to better posture, well-balanced athletic training practically always accomplishes this.

When the posture is correct, the weight is so distributed that undue strain is not thrown on any group of muscles. The column that makes up the body is composed of feet, legs, pelvis, abdomen, chest and head. The mechanics concerned in maintaining the erect posture is best illustrated by the simple process of erecting a tent. The poles support the canvas, which may be likened to the soft parts of the

body, consisting of organs, skin and so forth, but the poles are kept erect by a series of guy ropes. The muscles act as the guy ropes to hold the bones in such a position that the weight of the body is transmitted through the middle.

If we hold up a pole and balance it carefully, little effort is required to hold it. A 20-pound pole may thus be balanced by the lightest touch. If we hang a 20-pound weight on it, we must change the angle of the pole to the ground, or considerable more effort will be necessary to balance it (fig. 1 *a* and *b*). It is the same with the body.

If a person is very fat and has a fat man's pouch or "bay window," which is analogous to the weight on the pole, he must incline that part of his body above his abdomen backward to compensate for the increased weight in front of the line of weight-bearing, or he will topple forward (fig. 1 *c*). This can be done only by effort on the part of the back muscles. Quite frequently this results in backache. The body must obey the same laws of gravity as the perpendicular pole. However, as the body must move, it is divided into a number of parts, but any marked deviation from the perpendicular line by any one part must be compensated for by a shift to the opposite side of the line of a corresponding weight.

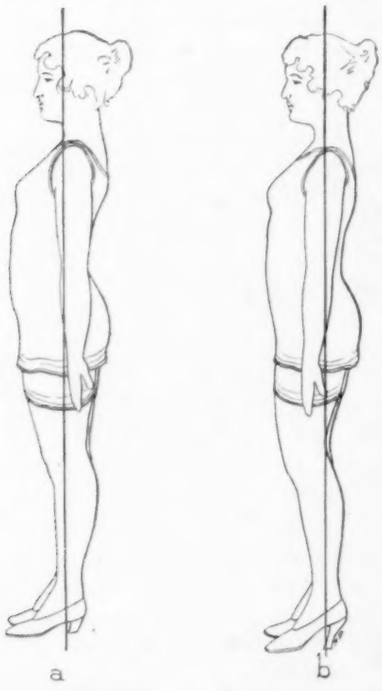



*Fig. 2.—Standing posture: a, with 1¾ inch heels; b, with 3 inch heels. With the high heels, the weight has been shifted forward and the knees forced to bend.*

Much is blamed on the condition of flatfoot. A great deal is said about the longitudinal arch and the anterior arch. The former exists but the latter does not, except in anatomic drawings. Flatfoot in itself does no harm, for many persons with fallen arches go through life without trouble from them. Feet that give pain and discomfort may have very good arches. Such are the weak or flattening feet seen in persons who are suddenly thrown upon their feet for longer hours than usual. The condition can be corrected by proper shoeing, supports and exercises.

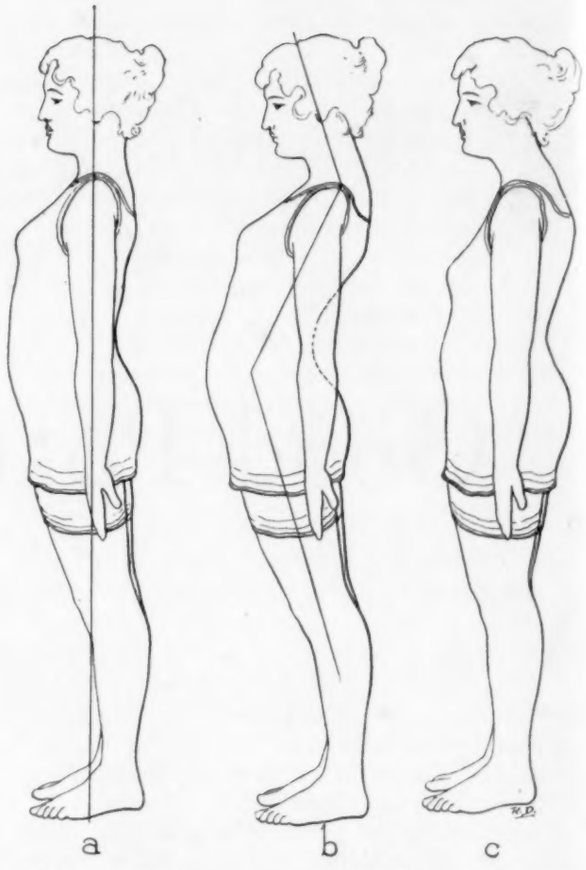
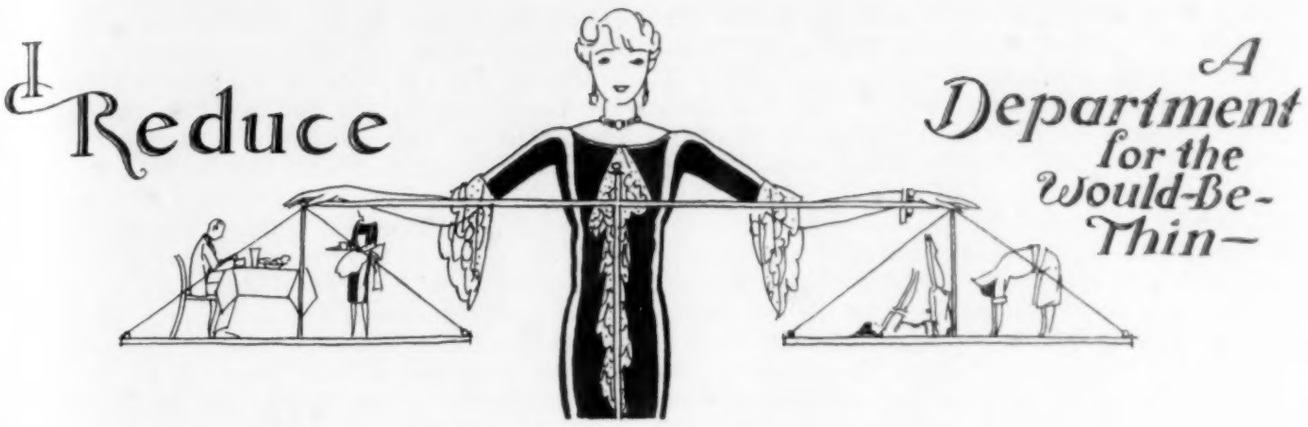



*Fig. 3.—Posture: a, correct posture; b, attempt at correct posture; c, slouch.*

Most women are brought up to wear shoes with fairly high heels. Extremely high heels cause poor posture by making it impossible for the wearer to transmit the weight in the proper line (fig. 2 *a* and *b*). On the other hand, suddenly to substitute very low heels for high heels is almost sure to cause discomfort. Under ordinary conditions a military heel about 1.5 to 1.75 inches high is quite satisfactory.

Happiness in life is the aim of all, and one of the chief aids is good health. Unnecessary bodily strain leads to fatigue. Fatigue leads to indifferent work. Indifferent work leads to many pitfalls, such as lack of opportunity and reduction in wage earning capacity. Often an entirely different outlook on life can be gained simply by improving the manner of using the body, and correct posture is by no means the least of the aids.




# Are the Glands to Blame If We Are Overweight?

*By A. J. Carlson*

THE body weight of the normal person is made up of from 15 to 20 per cent of fat. When a person accumulates fat considerably above this amount, he is obese. It is possible for all normal persons to put on fat above the average normal figure either by greatly increasing the food intake or by decreasing physical activity. The most common form of obesity is that due to overeating or underexercising.

Whether any one of the glands favors accumulation of excess fat in the body is a difficult question to answer. In cases in which obesity appears to run parallel with disorders in the glands, it is frequently difficult to decide whether the glands are the cause of the obesity, or whether both phenomena are merely symptoms of some deeper lying disturbance.

### *All Endocrine Glands Have Been Accused*

Nearly all the endocrine glands have been accused of causing obesity. The scientist must decide whether or not abnormality in any gland produces an abnormally intense hunger, so that the person is led to eat above his actual needs, and whether or not abnormal activity of any gland produces sluggishness, so that physical activity is unusually curtailed.

Abnormal hunger is present in diabetes, but this comes secondary to the failure of the body to use the sugar. Although the person with severe diabetes may eat more than normally, he does not as a rule put on fat. The influence of the secretion of the pancreas, insulin, on hunger and appetite is therefore indirect. It has, so far as scientists can tell, no direct action on the hunger and appetite mechanisms.

The other fact that appears to point to some relation between the pancreas and obesity is the frequent appearance of diabetes in overweight persons. Obesity is an important predisposing factor to diabetes. Dr. Joslin declares that a person that is overweight is at least twice, and at some ages forty times, as liable to develop diabetes. This relationship appears to be due to the gradual overwork of the pancreas or injury to it from chronic obesity rather than to a failure of the pancreatic endocrine activity causing overweight.

Sometimes increased hunger and appetite are present in some stages of so-called overfunction of the thyroid, but this is, again, probably an indirect effect on the hunger and appetite mechanisms due to the higher rate of food utilization in such persons. This higher rate of food utilization, without actual physical work, is, as far as food utilization in the body governs hunger and appetite, equivalent to hard physical work. Moreover, such persons, as a rule, do not become obese but actually grow thin.

### *No Evidence Against Adrenals*

In advanced destructive diseases of the adrenals (Addison's disease), hunger and appetite fail just as they are apt to fail in any advanced chronic debility. This does not mean that the adrenals in some way directly govern the hunger and appetite mechanisms. It seems significant, however, that in the experimental

removal of these glands from animals the first significant symptom is total abstinence from food, owing apparently, to some profound change in the alimentary canal. Both of these relations play no rôle in the question of endocrine activity and obesity since, other things being equal, the failure of hunger and appetite leads, not to obesity, but to loss of body weight.

Failure of the thyroid, failure of the ovaries and testes, and, according to some investigators, failure of the hypophysis lead to decreased bodily activity and may thus indirectly lead to obesity. This is particularly significant in the lower animals as regards the ovaries and the testes, because when these glands are removed or undergo considerable change, the sex urge disappears and that means the loss of one of the fundamental stimuli to activity in animals.

As a rule, the adolescent girl puts on subcutaneous fat parallel with the maturing of the ovaries and the assumption of the adult sex life. When this does not occur, there are probably some secondary digestive or other defects present. On the other hand, development of obesity is common at the time of the menopause and may even accompany the premature or artificial menopause resulting from removal of the ovaries in women. This is an apparent contradiction—the assumption of adult ovary function increasing the accumulation of fat and the failure of this function later in life producing the same and even more pronounced obesity.

The tendency to obesity following the normal menopause is more complicated than mere failure of ovarian activity; the factors of age enter. Marked obesity may be accompanied by sterility in women. Whether the sterility (due to underfunction of the ovaries) is the cause of the obesity, or obesity is the cause of the sterility, or whether both conditions are symptoms of a deeper lying disturbance, cannot be answered today with certainty.

### *Animal Husbandry Sheds Light*

The relation between the testes and obesity seems simpler. A great deal of information on this subject has been obtained from animal husbandry. Removal of the testes in animals tends to decrease physical activity. The animal seems less inclined to strife and struggle. Castration does not seem to decrease the appetite, but it appears to lower the rate of combustion of foods in the tissues. These factors, then, would lead to increased accumulation of fat; but obesity does not necessarily follow complete failure of the testes. The castrated man or animal may still remain lean, if the food intake does not exceed the actual need for maintenance of the average body weight. This is abundantly shown in the gelding horse or the steer used for physical work on the farm.

Some physicians believe that underfunction of the thyroid glands predisposes to obesity. One might expect such a relation, for the reason that depression of thyroid function lowers markedly the capacity of the tissues to oxidize the foods, and foods not oxidized are usually deposited as fat. Another evidence favoring this view is the fact that the thyroid hormone (thyroid extract) given by mouth will decrease most forms of obesity. Hence it seems reasonable to suppose that obesity may come as a consequence of a partial failure of the thyroid.

But the situation is not so simple. In experimental animals, lessening and complete loss of thyroid function do not produce an increased accumulation of fat, despite the fact that these animals become less active, that they have greatly reduced capacity to burn the foods in the tissues, and that they do not seem to have any marked impairment of hunger and appetite. These animals may gain in weight, but this gain is not primarily fat; it is water in the tissues. Many of the tissues undergo fatty degeneration, but this is not obesity; that is, ordinary accumulation of excess fat. The existence of an obesity of distinct or pure hypothyroid origin is questioned. Excess of the thyroid hormone decreases obesity or body weight by increasing nervousness and tissue combustion. This is due to a drug action.

### *Peculiar Type of Obesity*

During the last twenty or thirty years a peculiar type of obesity supposed to be associated with underfunction of a small gland at the base of the brain, known as the hypophysis, or the pituitary gland, has been recognized. This has been called hypophyseal obesity. It is particularly marked by the accumulation of fat in and around the mammary glands, on the abdomen and on the thighs. There is now clear evidence that this obesity is due, not to underfunction of the hypophysis, but to some injury to the brain near this gland. This obesity should therefore be called cerebral adiposity, or adiposity due to brain impairment. It may develop as a consequence of lethargic encephalitis (so-called sleeping sickness). It is probably futile to try to control such overweight by feeding extract of the hypophysis gland.

The most extreme form of obesity and also the most obscure as regards cause is the condition known as adiposis dolorosa, or Dercum's disease. But persons with this malady also exhibit many other symptoms, such as generalized pain or tenderness, neuromuscular weakness, mental instability and increased appetite. There is no agreement at present as to the cause of this condition. Nothing similar to it has been produced by experimental injury to one or more of the endocrine glands in animals. Nevertheless, some persons believe that it is due to gland disorders, because disease conditions in some of the glands have been found in many of the persons who have this disorder. It may

be seriously questioned whether these endocrine changes are not symptoms paralleling the obesity, both phenomena being due to a more deep seated disturbance in metabolism. Curiously enough, this type of obesity appears to be from five to six times more common in women than in men.

Racial or family factors play a rôle in the tendency to obesity or leanness. It is not known, however, whether this apparent hereditary factor works through the mechanism of changed endocrine functions. The age factor in obesity is equally difficult to interpret. Many, if not all, the glands decrease in activity with age. But it does not follow that the tendency of obesity to increase with age is due to a general endocrine underfunction. The glands may favor or counteract the development of obesity by modifying or controlling important physiologic functions. None of them seem to be directly concerned in the accumulation of fat in the body. The control of obesity in otherwise normal persons still remains one of balance between food intake and work. To be sure, thyroid extract, when taken in sufficient amounts, makes fat people thin, but this method of growing slender may be more injurious than the obesity and should never be substituted for nature's way.

A person fairly normal except for excessive fat may well forget his glands and neglect his pill boxes, if he takes steps to curb his appetite and increase his labor. If the will power is not equal to these tasks, he may take a flyer in Florida real estate, since fat melts away in the frying pan of real worry.

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# Guarding the Health of the Baby Camper

MOTOR touring and camping are, at best, hazardous affairs for the baby or young child. Yet there are many mothers who would lose their only chance for a much needed vacation and change if they did not take the babies camping. The Children's Bureau of the U. S. Department of Labor has issued instructions for keeping the baby healthy and happy in camp.

The wise tourist and camper will take advantage of every safeguard against disease that science has provided. This means that the entire family will be vaccinated against smallpox and immunized against typhoid fever and diphtheria before starting on the trip.

Perhaps the most important thing in the life of a camper is his water and food supply, and for a baby camper this must be absolutely safe. All the water should be boiled, with the possible exception of water taken from a source that is marked safe by the local health authorities. The water may be boiled over the camp fire for five minutes, then kept covered and cool; it should be screened against insects and kept in clean containers. If the campfire is not convenient for boiling the water, a solid alcohol stove (they are cheap, efficient and compact) may be taken along for this purpose.

If the baby is not being nursed, the milk is the next consideration. Powdered cow's milk, which is convenient, and safe as to quality and cleanliness, is easily prepared by mixing with boiled water according to the directions on the can. This may be used for preparing a special formula, and also for the entire family.

If the baby is taking a formula, the bottle, nipple, spoon and mixing bowl should be boiled for five minutes before making up the feeding. It is wiser to make up only one or two bottles at a time, as even the most carefully assembled formulas may spoil in hot weather under camping and touring conditions, unless a portable refrigerator is used. The hands, of course, should be thoroughly washed before preparing the bottles.

The regular routine of baby's life should be adhered to. The small baby should have his feedings every three or four hours by the clock, and the larger child should have four regular meals punctually, and they should be wholesome and well balanced. Eating between meals is to be discouraged. The food supply in most camps is limited and expensive. One should, therefore, take along fresh, green vegetables, clean butter, eggs, fruit and meat and bottled milk, in a portable refrigerator if possible.

It is important to make camp in time to put the baby to bed at 7 o'clock, bathed, in a fresh nightgown, and in his own airy sleeping nook, which should be screened by fine mosquito barring. Even his bath water should be boiled. If camp is made for any length of time, a safe place should be provided for the toddlers and runabouts, so that they may be fenced in somehow, far away from the campfire or stove and treacherous but appealing bodies of water.

Good, clean food and water, fresh air, quiet and regularity of habits insure comfort and health for the baby at all times, and they should not be forgotten in the informality of camp life. Nor should the older campers forget that they must protect themselves against communicable diseases in order further to safeguard baby's health.

*At right: A camp on the Alaskan peninsula.*

*Below: A medicine man, destroyer of evil spirits.*

# ALASKA—*A Sportsman's Paradise*

ALASKAN summers are attracting more and more American tourists and sportsmen. Trophies of the hunt are borne away from this immense northern country in vast numbers and with great pride.

Dr. W. H. Chase, assistant health commissioner of Cordova, Alaska, supplies the photographs on this page—a typical camp on the Alaskan peninsula; a medicine man, destroyer of evil spirits; the results of a brown bear hunt, and a mountain sheep.

The great Alaskan brown bear provides a trophy that cannot be procured anywhere else in the world, says Dr. Chase; it is the largest of all living carnivorous mammals. Some of these bear exceed a ton in weight and are more than 12 feet in length. The spring is the best time of year to hunt the big brown bear. Moose, sheep, caribou and the grizzly are best hunted in the autumn.

Water fowl and fish in abundance add to Alaska's attraction to the sportsman.

*Above: A mountain sheep.*

*Left: Trophies of a brown bear hunt.*

HYGEIA
THE HEALTH MAGAZINE
*Published by the American Medical Association*
*535 North Dearborn Street, Chicago*

# *Plain Facts about Health and Disease*

## HEALTH NEWS OF THE MONTH

**Indigestion and Skin Diseases**

The appearance of pimples or small eruptions on the skin is usually the occasion for some kind friend to recommend that the system be thoroughly cleansed by the taking of a cathartic, based on the common view that there is some poison circulating in the blood. Indeed, the textbooks on diseases of the skin themselves constantly emphasize the association of disturbances of the stomach or intestines with eruptions on the skin.

Investigators in New York City attempted recently to determine definitely just how much actual reason there might be for this common belief. They therefore analyzed the excretions in 900 instances in which there were eruptions on the skin, and they found actual disturbances of digestion in the intestinal tract in persons with numerous pimples and blackheads, with eczema and itching in the orifices of the body, with boils and with generalized itching. They also found intestinal indigestion frequently associated with more uncommon forms of skin disease.

Of special interest were the cases in which the finger and toe nails were greatly changed, becoming thick, lusterless, opaque and brittle. In these instances, it appeared quite certain that the change in the finger nails was brought about directly by the difficulties of digestion.

In more than two thirds of the persons suffering with itching of the various parts of the body, there was found to be difficulty in the proper digestion of sugars; the majority of those suffering with pimples and blackheads showed unsatisfactory digestion of both protein and sugar foods.

It should not be believed, in the light of these investigations, that the taking of a cathartic or a laxative is the only indication in treatment. This will, of course, remove decomposing and incompletely digested material from the intestinal tract. It will not, however, correct the fundamental disorder that is responsible for the lack of proper handling of food substances. To correct such a disturbance, the physician will need to make a complete study of intestinal digestion, including particularly an investigation of the excretions, to find out the deficiency and the toxic products that are developed and that bring about the symptoms.

**Qualified Physicians**

Once each year, *The Journal* of the American Medical Association sums up the records made by doctors in their examinations before state medical boards in which they attempt to qualify for license. In 1925, 5,956 candidates for licenses were examined that were graduates of sixty-eight medical colleges. By contrast, in 1905, the graduates of one hundred fifty-three medical colleges were examined. Eighty-five schools, therefore, have discontinued their existence, giving way to institutions of higher rank, which are turning out men capable of practicing modern medicine.

To the shame of the states in which they continue to hold their existence, there are still nine medical schools in the United States whose diplomas are not recognized as acceptable qualifications for license to practice medicine in from seven to forty-eight states of this country. Indeed, six of these schools provide diplomas acceptable in only two or three states.

The licensure scandal of the past few years has brought about a clean up of conditions in Connecticut and in Missouri. The state of Arkansas, however, continues to have a separate board of eclectic medical examiners, which, in ten years, has licensed 227 graduates of inferior medical schools, of whom 199 held degrees from a single diploma mill in Kansas City.

Since the World War, there has been a great influx of foreign physicians, who are attempting to secure licenses in various states. Eleven state

licensing boards now require American citizenship; ten others require first naturalization papers, and five others a declaration of intention to become citizens, before granting a license to physicians from abroad. Twenty years ago, numerous foreign physicians came to this country with credentials that were unable to stand the light of investigation. Nowadays, attempts are made to determine whether such credentials were actually issued to the man who holds them, and if the work that they purport to cover was done. In this way, the standards of medical practice are being raised, and our citizens may be assured that physicians whom they may consult are capable of providing sound medical care.

**Modern Care of Lepers**

The detection of a leper in any American community is likely to lead to hysterical sensationalism on the part of the public and the press for a few days, after which the matter falls into oblivion.

Leprosy has existed in this country for many years, but has seldom been a problem of great importance because the cases are few and have been quickly put under proper control. Dr. O. E. Denney of the U. S. Public Health Service is authority for the statement that there are today approximately 1,200 lepers in the United States. It is not possible to say that this represents the total number, because no doubt many cases occur that are not properly recognized or detected, or that may be covered up because of the associated possibility of sensationalism and fear.

The disease has been endemic particularly in the Gulf coast states since the earliest times; it was sustained by contact with tropical America and propagated through slavery. The control of cases of leprosy has always been difficult because the legendary fear of the disease has caused every community to react vigorously against the establishment of institutions for the segregation of the persons with the disease. Even though it was known that lepers had traveled about, eaten at public restaurants and begged on the thoroughfares for years, every community opposed the establishment of an institution. Nevertheless, in 1884, the first home for persons suffering with this disease in the United States was established in Louisiana, and the first patients were brought to it by night on a coal barge to prevent attacks upon them or destruction of the home.

In 1917, by an act of congress, the federal government purchased the Louisiana leper home at Carville and established it as a national institution. Today, house facilities are available for approximately 425 patients in that institution, and the unfortunate victims of the disease may now be assured of comfortable quarters, excellent medical and surgical attention and proper nursing.

In the meantime, investigation of the methods of treatment of the disease continues to be made in foreign countries, and chaulmoogra oil has been found to have specific properties in overcoming it. Arrangements have been made for treating the leper in the national institution, and if after repeated examinations he is found to be improved and free bacteriologically from the germs of the disease, he may secure parole and release. After his release, he must report every six months for another examination, and if six such examinations prove negative during the period of three years, he may be released completely.

In this manner, modern science treats in a humanitarian and scientific way the unfortunates who have suffered untold agony at the hands of their fellow men in a previous century.

M. F.

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## THE TIRED CHILD

THE tired business man has his tiredness relieved by the theatrical displays planned especially for him. The tired mechanic indulges in outdoor and indoor sports and vacations to relieve the monotony of his existence. Few people realize, however, that the school child is sometimes greatly fatigued by the activities that constitute his daily routine and that, as a result of too much effort while in a fatigued state, he may develop mental disturbances that may mar his future.

Dr. Max Seham, in the *Boston Medical and Surgical Journal*, considers chronic fatigue a mixture of actual tiredness of the tissues, of a decrease in the person's average mental achievement, of an actual decrease in his average physical strength and endurance, and, perhaps, of some emotional unbalance. The child that enters school at the age of 6, he points out, is taken out of his natural atmosphere of sun, fresh air and freedom and over night is subjected to a completely artificial routine of life. No matter how much we may consider school life as mere play, it necessitates concentration, involves mental strain and may therefore create nervous tension. Furthermore, the child is brought under the necessity of certain checks or inhibitions. These naturally involve a change in his whole attitude toward daily life. The child is

emotionally less stable than the adult, and is likely to be more easily disturbed by unusual conditions.

A study of many children, both normal and abnormal, that seem to suffer from the results of chronic fatigue, convinces Dr. Seham that the most common causes are inadequate sleep, inadequate food, excessive social activities, excessive amounts of outside work, such as carrying newspapers, clerking and similar occupations and excessive amounts of housework and home study. Additional factors, such as poor ventilation, bad lighting, carelessly constructed furniture, speed tests in school with insufficient rest periods, and teachers that are themselves tired and irritable, contribute greatly to the tired feeling on the part of the child.

Dr. Fritz B. Talbot of Harvard University Medical School considered the care of the tired child the most common problem that concerns the specialist in diseases of children. "Sleep," he said, "is most important. The daily nap is omitted far too early, and the child is permitted to stay up for useless and unnecessary reasons." And Dr. L. W. Hill agreed with the views of Dr. Talbot, recommending that the child sleep after his luncheon, if possible. The younger children, particularly, should have a nap immediately after noon and then spend some time in the open air. M. F.

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## THE "PATENT MEDICINE" OVERHEAD

A RECENT issue of *Drug and Chemical Markets,* a magazine devoted to the commercial interests of chemicals, drugs, colors and aromatics, had, tucked away in one corner, this interesting item:

> Lambert Pharmacal Company's advertising of Listerine has been so satisfactory, according to a statement by Gerald B. Lambert, president of the company, that over $3,000,000 will be appropriated in the present year for advertising. Last year $2,100,000 was spent for this purpose, and in the three years previous advertising expenditures aggregated $2,300,000. Net profits have increased from $724,542 in 1921, when the company started advertising with a very small expenditure, to $2,011,940 in 1925.

That any firm should spend so large a sum as $3,000,000 annually for advertising a single "patent medicine" is in itself sufficiently surprising. Whether the enormous sales of Listerine are due to a harrowing fear of halitosis, a devastating dread of dandruff—both so skilfully created by suggestion through advertising—or to some other reason less imponderable, does not at this time concern us. The really interesting feature about the item just quoted is that it verifies once more the fact—well known to those who have studied the "patent medicine" problem, but not generally realized by either the public or members of the medical profession—that newspapers and magazines make more money out of nostrums than do the manufacturers themselves.

It will be noted that, in 1925, the Listerine concern spent $2,100,000 in advertising, while its net profits for the same year were $2,011,940. More than twenty years ago one of the best known "patent medicine" makers said to his fellow members of the proprietary association: "The 20,000 newspapers of the United States make more money from advertising proprietary medicines than do the proprietors of the medicines themselves." Evidently they still do.

When John Doe pays a dollar for a bottle of "patent medicine" he little realizes that more than 50 cents of his dollar has been expended in an effort to persuade him that the nostrum is what he needs. A. J. C.

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## THE SACRIFICE OF THE PHYSICIAN

AS THE work of medical science becomes better known to the public, newspapers and magazines are beginning to look into the history of medicine. Editors are rediscovering the fact that physicians have again and again been martyrs to the cause of public health and to safety. Indeed, William O. Trapp, in the New York *World,* expresses the situation succinctly in the words, "The surprising fact, as any chronicler of medical history can testify, is not that doctors have proved themselves courageous but, rather, that the general public seldom hears of it."

Mr. Trapp points out that the physician has stood in the vanguard of the heroic since the time when the Black Death swept through Europe in the fourteenth century. The names of de Vinario, Gentiles and de Chauliac are recorded among those who fought the great scourge.

The American list of martyrs bears the names of Drs. Walter Reed, James Carroll and Jesse W. Lazear, who went down in the fight against yellow fever; of Drs. Howard T. Ricketts and Thomas B. McClintic, who succumbed to typhus and to Rocky Mountain fever, respectively, and the names of many other practitioners of medicine who lost their lives as the result of secondary infections sustained during operations or through accidents to which physicians are necessarily exposed in attending the sick.

The French roll of honor contains the name of Louis Brazy, an intern in Paris, who lost his

eyesight from secondary infection during an operation, and of Bergonie, who suffered mutilation after mutilation while investigating the x-ray.

Indeed, a complete list can never be assembled for the reason that so many have passed without the recognition of the world because they silently gave their lives in the routine performance of their duties. The New York *World* suggests as the ideal motto for the hospital door: "Greater love hath no man than this, that he lay down his life for his friend."

M. F.

## TREATMENT OF SKIN DISEASES

SOME persons believe that every disease of the skin can be successfully treated with a salve, a lotion or a powder. The many nostrums advertised for the treatment of skin disease show a recognition of this fact by their promoters. Today the diseases of the skin are treated by varied forms of apparatus and indeed by every method of medical administration known to medical science. This is a reflection of the application of knowledge in physics, chemistry, biology and bacteriology to medicine, and of a more thorough comprehension of the fact that the skin is not merely a protective covering for the body, but an organ the condition of which reflects that of the other tissues and influences them definitely.

Perhaps the greatest advance has been the use of the x-ray and the knowledge that application of its rays would affect not only tumors, the cause of which is unknown, but also inflammations and degenerations of the skin produced by parasitic organisms. Not only the rays of the x-ray tube, but also those of radium, of the sun and of the ultraviolet lamp are known to have definite effects on the skin. Radium is used for destroying cancer of the skin, masses of veins, birth marks, moles and similar unsightly excrescences.

As Dr. Fred Wise indicated at a recent meeting of specialists in diseases of the skin, the physician is no longer limited to any single form of treatment, but may attack such growths with any of the destructive rays that have been mentioned. He may freeze them with carbon dioxide snow; he may remove them surgically with the knife; he may dry them by passing an electric current through them, or he may cut them with a needle, the cutting power of which depends on vibrations produced by electric waves.

In attacking certain parasitic diseases of the skin, the specialist reaches them through the blood, injecting combinations of dyes and metallic elements or specific drugs that produce immediate death of the parasitic organisms when they come in contact with the substances.

M. F.

## THE HEALTH OF NORMAL SCHOOL STUDENTS

THE Indiana State Normal School at Muncie made a careful examination of its students; it found that while the prevalence of physical defects was not high in comparison with other schools, yet many students were carrying good minds in poor physical frames. Many such students, it was believed, would weaken and break, both mentally and physically, if placed under prolonged stress.

Of 266 girls from city homes, only 13 per cent showed excellent physical development; the rest needed training to correct postural and other defects, such as mouth conditions, defective vision and disease conditions. Of 206 girls from rural homes, only 3 per cent showed excellent physical development. Over half had mouth conditions needing attention; 29 per cent had goiter; more than one fourth wore glasses. Many exhibited poor posture, underweight or overweight, poor muscular development, anemia, malnutrition, improper diet and other abnormalities.

The showing among 200 boys was not quite so bad; nearly a fourth were without gross or evident physical defects.

In commenting on this large percentage of defects in a select group of young people, the Indiana investigators give two outstanding causes: poor heredity and lack of health education. Lack of health education means poor prenatal and postnatal care, poor or no training in childhood and youth, and ultimately a retarded or subnormal person.

Health can be taught; it can be so directed, if health education becomes a requirement in all schools, that the veil of ignorance surrounding so many persons and homes will be lifted. Mothers and fathers of the future will thus be educated in the value of the proper management of their children. For health training in the home is even more essential than that which the school can give.

J. M. D.

*Wrinkly Gray waded out until he was knee deep, filled his big trunk with water, and squirted it all over his back, again and again.*

# The Elephant by the River Squish

*By Elizabeth Blaine Jenkins*

IT WAS a warm green and gold afternoon in the deep, deep jungle. Everything was still except jewels of sunshine that danced over the bamboo trunks and among the tangled vines. Outside the black fringe of the forest the wind shrieked in the cane fields like an angry beast tangled in a net, but in the jungle it whispered among the grasses or said nothing at all. The big palms made dagger-like shadows on the jungle floor, while the grasses whispered: "S-sip-sip!" and the long, lazy river answered: "Squish, Sh-*Squish!*"

There was a very big shadow on the lazy river's breast that broke and pieced itself together like a picture puzzle card. This shadow had four pillar-like legs, two flip-floppy ears and a long snout that curled now this way, now that, in a very interesting way.

All at once the shadow lifted its snout and made a most alarming sound, much like a jazz band. Then a big elephant lifted his feet out of the oozy mud along the banks of the River Squish, and klop, klop! he waded out into the water until it came as high as his knees. Then he waded as high as his shoulders, then up to his queer little eyes, and then all you could see of Wrinkly Gray was his trunk and his tail, and both were sticking straight up in the air.

The next thing Wrinkly did was the most interesting of all. He waded out until he was knee deep, filled his big trunk with water, and squirted it all over his back, again and again. He had a very fine shower bath, at the edge of the lazy Squish.

Wrinkly Gray had no towel, but he knew that his wet skin should be rubbed until it tingled, and he particularly loved that tingly feeling. With a grunt of delight he rolled over and over in the hot, golden sand, kicking his four big feet high in the air. He looked like a little temple that had been turned upside down. He certainly did enjoy his upside down-ness in that warm, dry sand with the hot jungle sun shining brightly on him and drying him.

After Wrinkly Gray had rubbed himself dry, he shook the sand out of his baggy skin trousers and tramp, tramp, he blundered through the jungle looking for a good meal. He butted down a tree, peeled a piece of bark ten feet long, and ate the juicy inner lining. He dug a few tree roots with his fore feet, picked palm nuts with his long trunk, then ate a number of long stalks of cane for dessert. As he finished his meal a little monkey handed him a red flower-cup of honey.

"Hello Wrinkly! Have a taste of my honey?"

Wrinkly thanked him politely and took it very daintily with his trunk.

"That was a lovely bath you had, Wrinkly. I sat up here in the cashew tree, and you gave me a very nice shower!"

"I do take a thorough bath; my mother taught me just how to bathe properly," replied Wrinkly proudly.

"What a big baby you must have been, Wrinkly!" chattered the monkey.

Wrinkly snorted a very big snort that scattered the leaves on the jungle floor.

"Why I only weighed 200 pounds when I was born, and I was only three feet high. My nose was only a foot long, but I was very intelligent; I walked just two days after I was born."

The monkey just loved to hear stories, so he said:

"Do tell me all about it, Wrinkly Gray."

Wrinkly Gray smiled a very wide smile, and continued:

"The herd was moving up hill to better pasture. I walked under my mother's big body, and every time I tried to run outside with the grown-ups, she would slap me with her trunk and scold me, Ruff! Ruff! Once we crossed a river, and I climbed on my mama's back and soon learned to swim. Then she taught me just how to take shower baths."

"But how did you get here?" asked the little monkey.

"I had an argument with the herd, and they didn't agree with me, so I decided to go away and agree with myself. That is a fine way to settle arguments," said Wrinkly Gray.

"I swam across a Big Blue Water; I crossed the rice and the cane fields where little, brown, two legged creatures were working in the sun, and I came right here to the River Squish."

"The little brown ones were two legged men creatures. I saw one of their cubs once; he was trimmed with little beads, and he tried to stand like he was very big," chattered the monkey.

Suddenly this pleasant conversation was interrupted, and the monkey leaped to the top-most branch of a very tall palm. Something soft and slinky-footed, of a bright orange color, streaked with black stripes, came quietly down to the River Squish. It lapped the water, then washed its face with one big yellow paw, for all the world like a big house cat. Wrinkly Gray did not care for this visitor at all. He switched his small tail and he flapped his large ears, and he trumpeted with all his might.

"Get out of my bath tub!" he roared. There was a flash of orange and black, and the visitor was gone.

"Shiver my coconuts, weren't you afraid?" asked a very scared little monkey.

"Why, I could toss that slinky-footed little Lick-his-face right over the moon. I tossed one like that not long ago."

The little monkey decided to hang himself in the top of the palm until the orange and black one was out of the neighborhood for he could not toss slinky-foots over anything. Wrinkly Gray decided to take a nap.

Wrinkly Gray was very happy on the banks of the River Squish. He awakened every morning by star light, and dined on fruits and grass and bamboo sprouts. Next, he took a long, long nap; then he always had a bath in the River Squish. He loved to watch the birds in the green roof of the jungle; it was just as if a rainbow had shattered, and was scattering red and blue and golden wings through the leaves of the bamboos and the palms. The peacocks and the parrots and the cockatoos all chattered and squeaked pleasantly to him, and he allowed them to bathe in the River Squish.

But one day Wrinkly waded into the river, and he could not find a place deep enough to cover his head. He did not like that at all. The next day he could not find a place deep enough to cover his shoulders. He was quite disgruntled, which means he was very cross indeed. The third day he could not find a place deep enough to cover his big wrinkled knees, and he was more than angry. He trumpeted:

"Where in the name of all the bamboos is my River Squish?"

But the river just ran along lazily, as if it were all tired out, and didn't even say Squish. The big, lazy river was drying up. It just would not rain. It went on getting hotter and dryer until nearly everything hung its tongue out and longed for a cool drink. After a while the animals got tired of being thirsty, and they climbed up the big slope of a mountain where there was still water hidden among cool rocks.

"Come on, Wrinkly, let's climb up the mountain," chattered the monkey.

"Come with us, Wrinkly," sang the little green and red and blue birds. But Wrinkly did not

*The monkey just loved to hear stories.*

want to carry his big body up the mountain slope, for he was afraid he might slide down, so he stayed near the little hot pools that were all that was left of the River Squish. He could not even bathe his big feet!

The jungle was golden now, and very hot and still. The palms rattled their leaves like castanets, and the grasses thirsted for a drink. Even the long slimy crocodiles had crawled away to find water. Wrinkly Gray was the crossest elephant in all the deep, deep jungle. The insects buzzed in his ears and made him uncomfortable. His trousers felt stiff and hot, and they were covered with little dry cakes of mud. His face was dirty, and his back itched.

"I'd give a piece of my beautiful tail for a shower bath in the River Squish," he roared to the empty trees.

One day, Wrinkly could not find even a tiny, tiny pool, so he filled his trunk with sand, and squirted it over his back, trying to pretend that he was having a shower bath. He did not like sand baths at all, but he was obliged to take something. However, he could not drink sand, so he was very miserable. I am not quite sure, but I think he cried. I am sure he sniffled a long sniff through his sandy trunk.

Then something happened. He heard a long, low growl that rumbled and rumbled. Wrinkly Gray was so excited that he lifted his trunk and trumpeted joyfully, for he had heard the deep growl of the sky before a storm.

The red lightning scratched the clouds; the thunder trumpeted like a herd of a thousand elephants, and it rained in torrents. The thirsty grasses and palms drank until they could not drink any more, and still it rained. Wrinkly ran joyfully up and down the banks where the Squish used to be, and was so happy that he had no sense of dignity at all. He acted just as he use to when he was very, very young. It rained for a long, long time. The jungle turned to green gold, the monkey came back, and the birds were soon flashing their rainbow wings in the green, green vines. Then all at once the sun came out, just as if nothing had happened.

Wrinkly went klop-klop-klop! down to the place where the Squish used to be. And what do you think he saw there? He saw the big, wide, lazy river flowing along just as if it had been there all the time! It was calling its own name, Squ-wish, Squ-wishy-wish!

Before it could say Squish again, Wrinkly was in the water up to his ears. He swam up and down and around, with his trunk and his tail sticking straight up in the air. Then he waded knee deep and took a very beautiful shower bath, and rolled himself dry in the warm, golden sand. Then he lifted his trunk and roared until the leaves of the palms trembled. "Bless my tusks, but I am delighted to see the River Squish again."

Wrinkly was so happy to have his shower bath again that he even allowed the slinky-footed one to lap a few laps of the beautiful new Squish. The slinky-foot lapped, then washed his big face with his big orange colored paw, then licked his whiskers and trotted away.

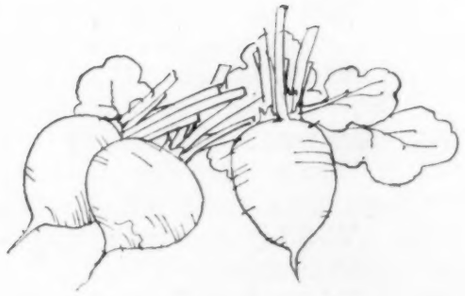
*There was a flash of orange and black, and the visitor was gone.*

That night when the long legged water fowl waded among the rushes, and the big white jungle moon peeped through the bamboos, the little monkey called down to Wrinkly from his little nest high up in the coconut palm:

"I'm so glad the clouds filled your bath tub again, dear old Wrinkly Gray!"

Wrinkly flapped his ears contentedly, and called back:

"If my bathtub ever, ever goes empty again, I shall certainly scratch the clouds myself, for I just must have my bath!"



## The Radish

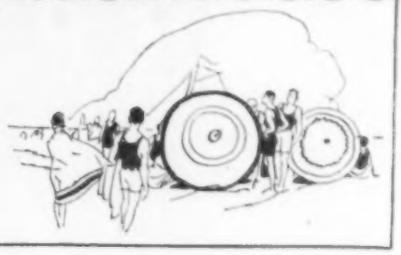
The Japanese are fond of rice and tea, but they like crisp, tasty radishes, too. Little boys and girls grow radishes in gardens all over Europe and America now; but thousands of years ago they were known and liked in faraway eastern lands like Egypt and Japan.

### Suggestions for Coloring This Page with Crayon

Color the radishes red, with green leaves and stems; make the girl's kimono blue with pink flowers, her fan purple and orange, the flower in her hair red. The tower should be brown, the lake blue and the cherry tree brown with green leaves and pink blossoms. The tea set, bowl and ornament may be green.

**Duplicates of this poster mailed to any address, postpaid, at 40 cents a dozen. No orders for less than a dozen.**

# News *and* Views *from the Field of Health*



## ILLNESS AS CAUSE OF COLLEGE FAILURES

Illness was given as the chief cause of failure in their college course by a group of students at the University of West Virginia, according to H. E. Stone, dean of men of the university. An investigation showed that very many of those petitioning for permission to stay in the university had been frequent callers at the infirmary.

The college physician reported that the most common ailments were tonsillitis and throat disorders, colds, coughs and disorders of the stomach. Nearly 4,000 cases were treated from September to April. A large proportion of the students in this class were known as "repeaters." Because of weak lungs or bad throats, every change in weather made them ill and caused their absence from classes, with consequent poor work or failure.

This condition has, in Dean Stone's opinion, led many universities and colleges to require complete physical examinations at entrance so as to detect weaknesses that would make it difficult for the student to keep up his college work.

## SEES CHILD LABOR IN CHILD MARRIAGES

Approximately 1,400 children of 14 and 15 years have married and established homes in Kentucky, according to a report in the *American Child*. The magazine views this form of child labor as seriously as it does factory or sweat shop labor.

These children are not fit either physically or mentally to assume the responsibility of home making. Housework is hard work, requiring greater strength than a 14 year old girl has. Furthermore it is drudgery of the very sort least fitted to a child's ability or inclination.

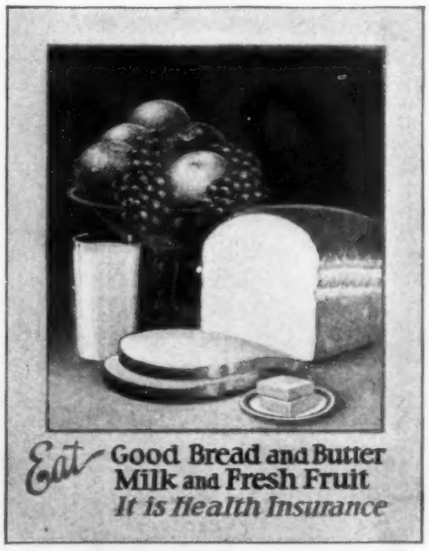
Such young children have had very little training in their own homes in this sort of work and cannot do it satisfactorily. Besides the harm done to their own health, they are harming the next generation as well. A mother 15 or 16 years old cannot give her child adequate care, physically, mentally or spiritually.

## INSOMNIA ONLY A SYMPTOM

Insomnia, or inability to sleep, although one of the commonest of man's complaints, is not a disease. It is a symptom of something else. Eight or nine hours' sleep is required by most people. Some few can get along with less.

Persons who have insomnia should see a physician at once, so as to find the cause and correct it. Months of illness and suffering may be saved by attention to this symptom in the beginning. The only way to cure insomnia is to remove the cause.

Insomnia may be caused by pain, nervous diseases, the discomfort from some skin diseases or the abuse of coffee, tea, tobacco or alcohol. It may also be the beginning symptom of an acute communicable disease. Any drugs taken for it should be prescribed by a physician, advises the Oklahoma Department of Public Health.




*One of the food posters recently issued by the American Institute of Baking.*

## CLEANEST TOWN CONTEST

Richardson emerges as the cleanest town in Dallas county, Texas, as a result of a recent contest held there. The committee reported that it was difficult to decide which town had the most sanitary appearance. However, the insanitary condition on the inside of a few business establishments was the chief cause of the lower grades received by the other towns.

The scoring system used by the judging committee included the following items:

Disposal of trash and garbage and garage junk.

Conditions of toilets.

Fire hazards.

Drainage of ditches and elimination of mosquito and fly breeding places.

Dairy sanitation.

Cleanliness of cafés, restaurants, markets, drug stores and hotels.

Freedom of streets and alleys from trash and weeds.

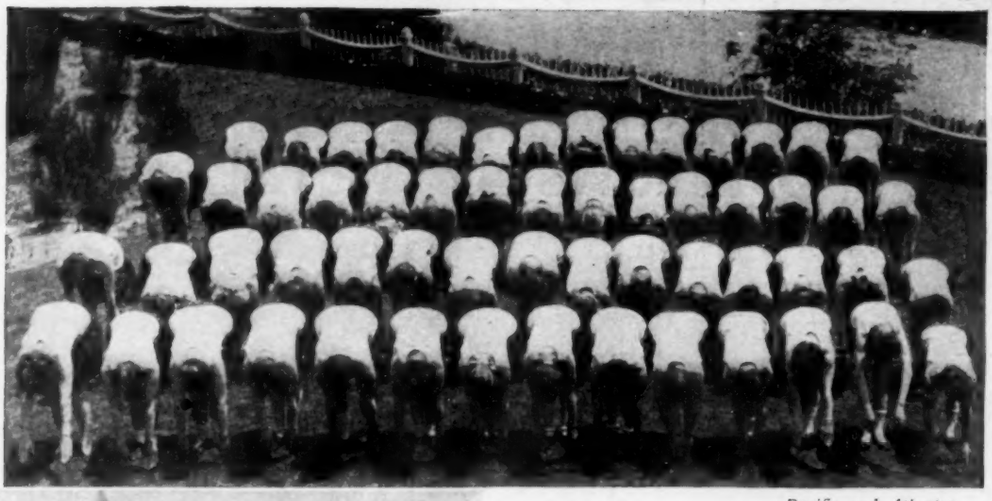
## PROBLEM CHILDREN OR PROBLEM PARENTS?

Frederick was a problem child in school. He was reckless, played truant for days at a time and was failing in most of his courses, though an intelligence test showed him to have average mental ability.

The school psychologist found that he hated the classical course he was taking in high school, that he was keenly interested in business and well informed on business methods, trade tendencies and related subjects. He wanted a job in a bank, but his father wanted him to go to Yale and become a lawyer.

The situation was explained to the father, and he was told by the psychologist that Frederick probably could not even pass the entrance examinations for Yale and that every day his conduct was growing worse, because he was not doing work suited to his ability. Still the father insisted on Yale and law school.

There are any number of such cases, according to Beulah Amidon Ratliff, writing in the *Survey*. The parent, not the child, is the real problem in these cases.



*Pacific and Atlantic*

## *DOING THEIR DAILY DOZEN*

**The women of the Hollywood (Calif.) Athletic Club are working strenuously to attain physical perfection by means of a gymnasium class that they have organized.**

*Underwood and Underwood*

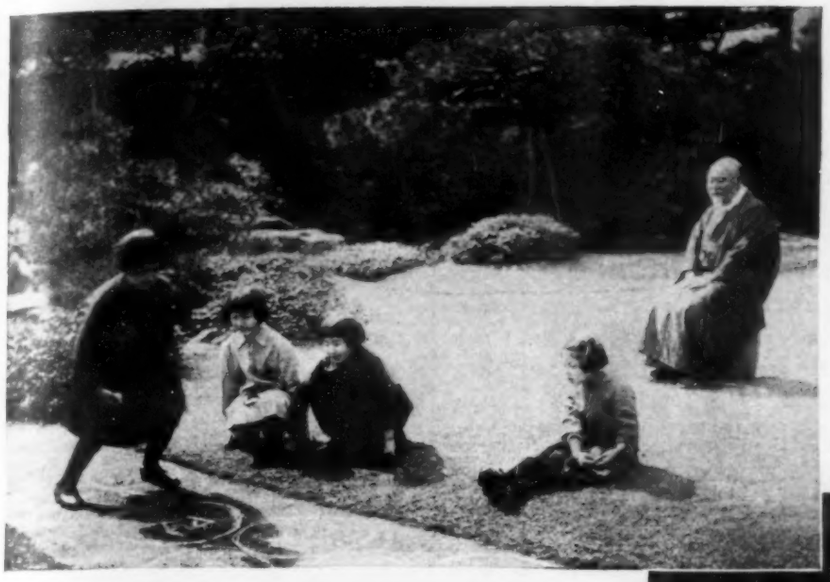
## *YOUNG MAN OF 96 YEARS*

**Despite his 96 years and vigorous, hard life as a pioneer of the West, Ezra Meeker can play leap frog with the young fellows.**

*Pacific and Atlantic*

## *GUARD AGAINST DOG DAYS*

**Dogs are being protected from one evil of hot weather by being innoculated against rabies.**



### *IN SUNNY JAPAN*

**Outdoor air and sunshine for young and old seem to be the rule in this Japanese family.**

### *HAS LIVED 125 YEARS*

**This old Indian squaw of California claims to be the oldest person in San Joaquin Valley. She says she has lived 125 years, which it is declared should be the natural lifetime of man.**

### *INDIANS DANCE IN WASHINGTON*

**Indians from the Hopi tribe of Arizona demonstrated their dances in front of the Capitol for members of Congress.**

*Photos by Pacific and Atlantic*

## DETECTING SPOILAGE IN CANNED GOODS

Never taste canned food to determine whether or not it is spoiled, advises a recent bulletin from the U. S. Department of Agriculture. One mouthful of food contaminated with *Bacillus botulinus* has caused death.

All canned food should be examined by other methods, however, before it is used. In tin cans, both ends should be flat or curved slightly inward. Neither end should bulge or snap back when pressed, and there should be no trace of leaks at the seams. The same holds true of glass jars.

The contents of the can should appear sound, the liquid clear. There should not be any outrush or spurting of air or liquid when the can is opened. The odor should be characteristic of the food. An "off" odor would indicate spoilage. If the food is in tin, the color should be normal, and the tin can itself should be smooth and clean and well lacquered, not extensively blackened or corroded.

Spoilage due to botulinus is hard to detect. It is therefore best to boil all canned vegetables and meats for ten minutes at least, before they are tasted. If necessary, boiling water may be added to cover the food while boiling it. The hot food should be carefully smelled, as heating sometimes brings out an odor of spoilage not noticed when the food was cold. Canned goods that show signs of spoilage should be carefully destroyed. Botulinus toxin will kill animals as well as human beings.

In home canning, the cans should be held at room temperature for a week or ten days and watched for signs of spoiling. If no defects show up in this period they may be stored at a lower temperature.

One should can only the surplus fruit and vegetables, advises the bulletin. Fresh fruit and vegetables should be used as much as possible; one should never can what might be used fresh. It is poor economy to cut down the use of fresh food in order to have a supply to can.

## MARRIAGE OF THE DEAF

A common form of hereditary deafness exists that has no relation to syphilis. To prevent this type, persons who are so affected should not marry each other, according to Dr. R. Scott Stevenson of London.

A curious fact brought out was that the deaf tend to marry the deaf. Congenital syphilis was found to be a common cause of deafness among children of the poorer classes, but this cannot be dealt with until the notification and treatment of syphilis are made compulsory, adds the report.

## CREED OF GOOD CITIZENSHIP

I BELIEVE in the trinity of cleanliness—beauty, health and safety. For I know that refuse and rubbish piles mar the beauty of my home and city; that they are the breeding places of flies and vermin; that, as potential starting points of fire, they menace my property and threaten my family with death—both my own and my neighbor's.

THEREFORE: I am a good neighbor. I take pride in my home, my yard, my alley and my street. I keep my premises painted, my lawn trimmed and green. The passerby on the sidewalk pauses to gaze at my brilliant-hued porch boxes and flower beds.

I am proud of the cleanliness of my home—both inside and out. There are no junk piles in my alley or yard, no rubbish piles in my basement or attic. I can look straight in the eye —any day—painter or electrician, fire warden or health inspector — and smile.

But I am prouder still of Wilmington because it is known far and wide as a city both beautiful and clean. I am a good citizen!—*Bulletin of City of Wilmington, Del.*

## GENERAL HEALTH HAZARDS IN INDUSTRIAL DISEASES

Occupational diseases need not be the chief concern of industrial hygiene activities in public health departments, thinks Dr. H. L. Rockwood, commissioner of health in Cleveland. General health hazards, such as dust, dirt, dampness, devitalized air, temperature, fatigue and darkness, affect the health of industrial workers to a much greater extent than the few trade processes that are responsible for occupational diseases.

Industrial hygiene should be a part of the program of every health department, says Dr. Rockwood, and by confining these activities to a lessening of health hazards, there need be no conflict with the operation of working men's compensation acts. In starting such a program, the first efforts should be directed toward air conditioning, the most important single factor in the field.

## PHYSICAL EXAMINATION FOR FOOD HANDLERS

Although the inanimate objects about a food establishment must be kept in a sanitary condition, it is no less necessary that the personnel be examined and kept from spreading disease. It does no good to sterilize the dishes if they are subsequently handled by a person with a communicable disease, says Dr. Louis B. Gloyne in the *American Journal of Public Health.*

Persons with intestinal disease, tuberculosis and other respiratory diseases would be eliminated by physical examinations and the general public would thus be further safeguarded against these diseases. While syphilis and gonorrhea are usually transmitted directly, it is possible for restaurants to become a factor in their transmission. Besides the danger from infected persons handling dishes and food just before it is eaten, it is a well known fact that many girls work as waitresses as a side line in order to meet men. Examination of them shows many of them to be infected. These are potential foci of infection that should be controlled.

## LONDON'S SPECIAL SCHOOLS

Schools have been established by the London County Council for blind and partially blind, deaf and partially deaf, epileptic, and mentally and physically defective children.

These schools provide elementary education and training for specially adapted vocations for children from 7 to 16 years of age. If the children live at too great a distance from the school or are too handicapped to travel alone, special cars, busses and ambulances convey them from and to their homes. Open air schools for tuberculous and for nontuberculous but otherwise debilitated children, and special courses for stammering are also held.

Attendance at these schools is with the consent of the parents. Physicians and nurses are in attendance to guard the health of the children. Any unusual condition is at once reported to the family physician. Every effort is made to cooperate with private physicians and hospitals. If the children improve sufficiently to attend regular school, they are transferred.

The aim of the special schools is to get the best possible combination of treatment and education. Provision is made for rest, treatment, play and exercise, the children spending the whole day at the school.

Lunches and midsession nourishment are also provided. Of course, it is possible to conduct these special day schools only in a large city.

*International*

### *YOUNG GYMNAST*

**This little girl will never need a reducing diet if she keeps up this exercise, which is her favorite.**

### *KITCHEN TASKS BECOME FUN*

**The domestic science expert is explaining to a future housewife and a future family man how kitchen work may be made pleasant instead of drudgery, by the use of modern appliances.**

*Acme*

### *CLOWN BAND CHEERS THE SICK*

**This gay band is only part of the circus troupe that performed for the patients of Bellevue Hospital in New York recently.**

*Pacific and Atlantic*

## CHILD LABOR IN FIELD OF AGRICULTURE

Long hours of tiring work with little or no pay seem to be the conditions under which children labor in fruit, hop and tobacco growing districts, according to a recent bulletin of the Children's Bureau of the U. S. Department of Labor. The fruit and hop districts of the north Pacific coast and the tobacco districts of New England and two southern states were included in the study.

The conditions seem slightly better in the fruit and hop districts. The principal work of the children is harvesting and berry picking, which lasts only three or four weeks. In the tobacco fields, the working period is much longer, especially in the South, where it lasts practically all the year. In this work the children do all kinds of labor. The working day is usually ten hours.

The intense heat, the odor of the plants, the constant attention required by machine work and the cramped position in which much of the work is done make the tobacco labor particularly fatiguing and undesirable. Fruit and hop work is not so hard, but living conditions for migratory workers, of whom there are a large number, are poor, especially in regard to recreational facilities.

Schooling is interfered with least in the fruit and hop industry. The season is short, and the school terms are arranged in accordance with it. In New England the strict enforcement of the attendance laws results in little schooling being lost, but in the South, with the very long season, the school term is necessarily short.

From $2 to $4 a day was earned in hop and fruit work; $50 to $100 was the most earned for the season in the New England tobacco work. In this work in the South, and in much of the fruit and hop work, the children worked on the home farms and received no pay, or at most a small share in the profits.

## INSURING A HAPPY ADOPTION

Adoption, like marriage, should not be lightly entered upon, says Dr. Arnold Gesell in a paper on "Psychoclinical Guidance in Adoption," recently published by the Children's Bureau, U. S. Department of Labor. Every child being considered for adoption should be given complete mental and physical examinations, advises Dr. Gesell, in order to determine as far as possible his mental and physical capacities.

The child should live with his foster parents for a probationary period before the final papers are signed. This is only fair to the child and to the parents.

## INDUSTRIAL ACCIDENTS TO YOUNG WORKERS

Proportionately more accidents from dangerous power-driven machines occur to minors 16 and 17 years old than to those under 16 or over 18, states a report of the Children's Bureau of the U. S. Department of Labor. This is probably because those under 16 are better protected by the laws and those 18 and over have had more experience, more ability and more nearly mature judgment.

Machinery was responsible for over one third of the injuries in the three states in which the study was made. Handling objects was the next most frequent cause of injury; strain due to handling heavy objects was followed in frequency by infections from slight injuries due to handling rough or sharp objects. Falls ranked third in the number of injuries caused and motor vehicles fourth. Here the largest number was fractures received in cranking engines.

In the study made, 920 cases of partial disablement for life of minors between 16 and 18 years old were reported. The Children's Bureau urges the extension of legislation to prevent minors under 18 years from employment in the operation of certain dangerous machines, in order to avoid economic, social and individual waste.

## TRY TO STOP SPITTING IN PUBLIC PLACES

A week's campaign against spitting in public places was held in Minneapolis recently. Girl and Boy Scouts, the health department, the schools, the tuberculosis association and other health and welfare organizations and the women's clubs cooperated to make spitting in public places unpopular.

## CHILD STUDY COURSE FOR PARENTS

Summer courses in child study and parent education are offered by the University of Iowa this year. A preschool home laboratory for children from 2 to 5 years will give student parents from out of town an opportunity to place their children in an ideal environment. The material of the courses is the outgrowth of eight years' intensive research at the Iowa Child Welfare Research Station.

## BABY SUPPLIES LOANED IN FRANCE

Cradles, chairs, perambulators, clothes, scales, milk sterilizers and many other articles needed for new babies may be rented or borrowed by French mothers. Two hundred and ninety babies have already been supplied, without charge in two thirds of the cases.

The work is done through a cradle society just formed by the Besancom Committee of the Red Cross.

## Protecting Children from Smallpox

*Ninety-eight per cent of the vaccinations made on 428 school children were successful. The work was sponsored by the Chicago Tuberculosis Institute with funds from the Christmas Seal campaign.*

# Questions *and* Answers

*If you have a question relating to health, write to "Questions and Answers," Hygeia, enclosing a two-cent stamp. Questions are submitted to recognized authorities in the several branches of medicine. Diagnoses in individual cases are not attempted nor is treatment prescribed.*

### Perspiration

*To the Editor:*—Please give me your opinion of the use of Nonspi and other applications to prevent perspiration in the armpits. If an itchy condition results, should the applications be continued? I perspire freely in the palms of the hands and the soles of the feet when there is none in the armpits.

W. H. L., New Mexico.

*Answer.*—Nonspi and similar preparations are essentially solutions of some salt of aluminum and are apparently harmless.

An effective application to prevent excessive perspiration in the armpits is a 25 per cent solution of aluminum chloride. This should be lightly dabbed on the affected areas for three or four days, or until signs of irritation appear. It should be repeated in three or four weeks. Any medication should be discontinued on the appearance of the slightest sign of inflammation.

### Venereal Disease; Seasickness

*To the Editor:*—1. Of the two social diseases, syphilis and gonorrhea, which is considered the worse? 2. What are the causes of seasickness? L. B., Illinois.

*Answer.*—1. Syphilis, if untreated, involves more serious and widespread damage than gonorrhea, but it is quite controllable under modern methods of treatment.

Gonorrhea, while primarily a local disease, can do great damage especially to the organs of generation of the female and sometimes becomes a general disease involving the joints and the heart, among other organs. It is difficult in either sex to be sure that this disease has been finally eradicated.

2. Seasickness in the healthy adult is usually due to excessive stimulation of the labyrinth, a portion of the internal ear the function of which is to maintain the equilibrium of the body. This stimulation is caused by the irregular motion of the ship.

Other factors that have to do with the production of seasickness are fatigue of the eye muscles, disturbance of the muscle sense, reflex irritation of the stomach and bowels and neurotic or psychic reactions in certain types of people.

### Rheumatism

*To the Editor:*—I have been suffering for five years from arthritis and have taken much treatment from reputable doctors and also different kinds of patent medicines, all without a cure or much relief. I am now writing to you to know whether or not you can report favorably on "Vit-O-Net Electric Blanket," which are recommended and sold by Vit-O-Net Manufacturing Company at 4111 Ravenswood Avenue, Chicago.

J. F. V., West Virginia.

*Answer.*—The so-called electric blankets are simply methods of applying heat to the body. The electricity passing through the wires has nothing to do with the effect produced, other than to generate the heat. Such electric blankets are a convenient form of applying heat to the whole body, although expensive. It is said that the blankets are apt to get out of order from broken wires and short circuit.

Heat applied in any way by blankets, pads, hot water bottles, or in a Turkish bath is usually helpful in relieving the pain or symptoms of a rheumatic, but it does not cure the disease.

### Mumps

*To the Editor:*—Is there a cure for mumps or any way one can help to get rid of the disease?

J. W. L., North Carolina.

*Answer.*—No specific cure for mumps is known. It is an acute communicable disease (due to some micro-organism), which runs a definite course and subsides.

It is quite possible that some day a specific antidote may be discovered as has been discovered in diphtheria, scarlet fever and some of the other communicable diseases, but no such remedy is at present available.

### Milk Injections

*To the Editor:*—I have heard of several cases lately of milk being given hypodermically as a stimulant to a patient in a very weak condition. How does milk act as a stimulant? H. S., Missouri.

*Answer.*—Milk is given by injection not for the purpose of supplying nutrition but for the purpose of producing what is known as a protein reaction.

The injection into the body of man or any other animal, of protein material from an animal of another species results oftentimes in a sharp reaction that seems to stimulate the activity of certain cells and tissues.

The exact nature of the changes brought about by this means is not known.

### Adhesions

*To the Editor:*—What is the cause of adhesions? Is there anything that can be done to help the severe pain that is claimed to be due to adhesions? What effect would the sun ray lamp have on such a condition? Is it possible that the heat would help to shrink them? About how long does it take before this condition wears off, or would another operation help? Is there any kind of a support that might relieve the pulling sort of a feeling?

C. M. G., Pennsylvania.

*Answer.*—Whenever the abdomen is opened for an operation of any sort, the delicate membrane (the peritoneum) that lines the abdominal cavity and is reflected over onto the intestines is extremely likely to become slightly inflamed. When such inflamed surfaces come into contact they unite, and this constitutes an adhesion.

There is the greatest possible variation in extent and character of adhesions and in the amount of trouble that may result. In most persons no pain is caused at all, and there is no subsequent disturbance, while in a few there is considerable pain, which continues for some time. How long the pain may continue it is not possible to say. In severe cases surgeons sometimes feel it warrantable to operate again, although there is always a large

chance that the second operation will not improve matters.

The application of local heat usually helps the pain from these adhesions. Exposure to the sun or to the quartz lamp might be helpful in some cases. Our experience is too limited for us to speak positively about this matter. If used at all, it should be used with great care. The use of a flannel band, drawn tightly enough to give support, is helpful in some cases but not in others. It is worth trying.

### Constipation and Auto-Intoxication

*To the Editor:*—I am 19 years old, have always been confined indoors at study and office work and have had constipation, colitis and auto-intoxication for years. Although I drink plenty of water, take an abundance of exercise and eat laxative foods, I do not have a satisfactory stool unless I use mineral oil. A natural amount of bran in cereal foods helps me, but any more than this makes matters worse. I have much gas in the bowels at times. How many times a day do the healthiest people evacuate the bowels, and what times are the most proper to do so? What measures should I take to overcome colitis and rebuild my nerves?

R. J., Canada.

*Answer.*—It would be interesting to know why the writer feels that he does not have a satisfactory stool. Bowel movements may occur as frequently as three times a day or not more frequently than once in three days, and yet one may be perfectly normal. It is largely a question of habit. Auto-intoxication is a term much less used than formerly. It describes the condition in which it is supposed that poisonous substances are absorbed from the bowel, and it is doubtless much less frequent than is often assumed.

One can know that one has colitis or that the nerves need rebuilding, only after a careful, physical examination and study of the case by a physician.

Bran, in reasonable amounts, is a useful article in the diet, although with some people it does not agree, being too irritating to the bowel. Mineral oil is the least objectionable of laxatives, acting as it does purely mechanically; but with such a diet as the questioner has been taking, both of these substances ought to be unnecessary to secure bowel movement.

In general, it may be said that it is a good plan to establish a regular habit of bowel movement, to have one's diet consist of the foods that are best suited to the type of work one is doing and to the type of life one is leading.

Having fixed the proper habits, the more completely one can forget the business of eating the better. The most healthy condition of both stomach and bowel is that in which one is unconscious of the fact that he has any such organs.

### Perspiring Feet

*To the Editor:*—I am troubled with discoloration of the feet of my stockings, because of perspiration, I believe, although my feet do not seem to perspire excessively. What can be done to overcome this? I can wear a pair of stockings just a few times before they are discolored so badly that they cannot be worn.

H. C., North Dakota.

*Answer.*—True chromidrosis, or the excretion of colored sweat, is rare and almost never affects the feet. In this condition the pigment is deposited on the skin itself and is dissolved with difficulty in soap and water.

The condition described is probably due to the action of color-producing bacteria on the perspiration after it is excreted. Measures to limit the perspiration of the feet might control this condition. A 25 per cent solution of aluminum chloride might be applied to the feet for three successive nights and repeated in three weeks. Any application should be discontinued on the appearance of inflammation or redness.

### Bow-Legs

*To the Editor:*—I am 18 years old and in excellent health. Would you recommend a surgical operation to correct bow-legs; or is it too dangerous and not worth the trouble? Does the operation involve a simple or compound fracture of the bone? What is the danger of nonunion of the fracture? Will the application of x-ray, diathermy and similar measures facilitate and hasten union of the bones? Will a permanent scar result? Will the operation result in a lengthening or shortening of the legs? Will the operation result in a perfect straightening of the bones? How many persons a year undergo such an operation?

M. A., New York.

*Answer.*—In selected cases, particularly in children, an operation for bow-leg might be recommended. In adults, it depends on the degree of deformity and possibly on the insistence of the possessor of the legs. The operation is not dangerous, if properly done, although it has its risks as do all operations.

In children under 5 years of age a simple fracture by an instrument is effective. In older persons it is an open operation with cutting of the bones. There is the same danger of nonunion that there is in other fractures of equal violence. The patient must take that risk. Nature usually needs no aids beyond those of fixation to hasten the union.

A scar will remain if the correction is done by open operation. There is usually little change in the length of the legs. As to whether the operation will give perfect results depends on the skill and good fortune of the operator and the patient.

Such operations are relatively few in adults. One hospital whose statistics are at hand reports forty-four instances of correction of bow-legs, thirty-two of knock-knee, and twenty-four of anterior bent tibias in one year. These were in children. The total number of operations was 291 in a total of 1,285 cases coming to the hospital for one year.

### Diet for Bright's Disease

*To the Editor:*—In incipient Bright's disease, are these foods safe: tomatoes, steam sterilized eighteen minutes in sealed cans, green beans in pod, lean ham, stewed apples, pears, peaches, plums, raisins, raw or cooked prunes, oranges, lemons, bananas, pies and cakes, and bran for constipation? Also, are coffee, tea, chocolate or other beverages permitted? In such case what medicines are safe for sluggish liver? Calomel is impossible in this instance. Has cold, damp or sunshine any influence? What line of employment should be avoided?

E. A. W., Maryland.

*Answer.*—It is best, when one has any disease, to have the diet prescribed by a physician who has examined the patient and is thoroughly familiar with his condition.

In general, the use of vegetables and fruits, either fresh or canned, is desirable. A limited amount of meat is often permissible; as are pies and cakes, if they do not disturb the digestion. Bran is helpful in promoting bowel movement, but it should be used only in moderate amounts as it disagrees with some persons.

Coffee, tea, chocolate, milk and buttermilk, all are excellent beverages.

The term sluggish liver is meaningless. It has been much exploited by the manufacturers of laxative and cathartic medicines. It is really better not to use any drugs to promote bowel movement. They are rarely necessary, provided the diet consists largely of fruits, vegetables (especially green vegetables) and a moderate amount of the coarse cereals together with plenty of water, and, most important of all, provided that a regular habit of attending to bowel movement is adhered to.

A warm, sunny climate without excessive heat is the best for a patient with Bright's disease. Employment should be one not involving much physical exercise and yet one which makes it possible to be outdoors a good portion of the day.

Drugs are of little value in Bright's disease except to meet special conditions, and they should be taken only on the advice and under the supervision of a competent physician.

### Hay-Fever

*To the Editor:*—I have read that hay-fever immunization can be obtained permanently by a preparation taken internally. Please advise me as to this. I have hay-fever, and it is necessary to take ragweed pollen each year, but if this new treatment will give permanent relief, I want it. Will you please advise where this pollen can be obtained, if there is any merit in it.

W. M. H., Tennessee.

*Answer.*—The successful treatment of hay-fever by giving preparations of the causative pollen through the mouth has been reported, but as yet this method has not been accepted. None of the better known pharmaceutical houses have placed such preparations on the market.

At present the most used and most successful method of treatment is that of injecting under the skin several doses of a small amount of extract made from the pollen that causes the symptoms.

### Heart Clots

*To the Editor:*—In cases of heart lesion, I have been told that there is a growth around the leaking valve similar to a cauliflower and that in some instances little particles of this growth become loosened and are sent through the veins to various parts of the body. If that is true, do they cause swollen, red and sore places? Do they ever lodge on the brain? If so, would that prove fatal? Is there any way this growth can be prevented or stopped once it has started? What is the best treatment for the trouble? What is it called?

J. F., Kansas.

*Answer.*—As the result of an inflammation of the lining membrane of the heart, known as endocarditis, clots of blood are often formed, especially on the valves guarding the openings between the chambers of the heart or of the large vessels that carry the blood from the heart.

From these clots, known as thrombi, little particles are often loosened and carried in the blood stream to the blood vessels, which become smaller and smaller the farther they are from the heart. These little particles or clots are known as emboli, and when any of them, as they are carried along in the blood stream, come to vessels that are too small for them to pass through, they plug up the mouths of these little vessels and prevent the blood in whole or in part from passing through them.

Such a condition does sometimes lead to swollen, red and sore places. When such plugging occurs in a vessel in the brain, it results sometimes in degeneration of brain tissue and sometimes in apoplexy; it may prove fatal.

There is no way of preventing the formation of such thrombi of the heart, or of the emboli in the blood stream when once the lining membrane of the heart has become inflamed.

### Low Blood Pressure

*To the Editor:*—I should be very grateful for any information concerning low blood pressure. Is its cause known? What is its effect? Please discuss its treatment. What diet should be followed? Is an entire cure possible? Is it more difficult to cure a case of long standing?

R. P. P., Canada.

*Answer.*—In the absence of any symptoms of serious disease, the reasons for low blood pressure are not well understood.

A blood pressure below the average has been found by the insurance companies to be no bar to insurance, and, on the whole, persons with low blood pressure present as good records in the matter of longevity as do those with a normal pressure. One cannot, therefore, advise as to its significance or as to whether any treatment is advisable. The best thing to do is to have a careful physical examination. This may disclose some associated symptoms and may afford some explanation of the low pressure.

### High Blood Pressure; Infection of Sinuses; Diet for Rheumatism

*To the Editor:*—How can I reduce high blood pressure? What is the cause of sinus infection and what is the remedy? What is the proper diet for one having rheumatism?

V. B. W., Illinois.

*Answer.*—The way to reduce high blood pressure is to find the cause and to correct it, when that is possible. In general, it may be said that rest, a light, easily digested diet, warm baths, and the avoidance of constipation and of violent exercise all tend to lower blood pressure.

Inflammation of the sinuses communicating with the nasal passage is caused by infection, usually with the so-called pus germs. Frequently such inflammation recovers in time without treatment. When this does not happen, the person should be treated by a physician who devotes his attention exclusively to troubles of this sort.

A suitable diet for one who is suffering from chronic rheumatism is one containing milk, fruits, vegetables, cereals and a moderate amount of meat or none at all.

### Teeth

*To the Editor:*—Dr. Henry A. Cotton, Trenton, N. J., makes the assertion in his "Focal Infections and the Delinquent Insane," published by the Princeton University Press, that all impacted molars are infected. Do you consider this assertion to be proved by other investigators? In the event that a tooth cavity is replaced or in the event of the excavation of the dentine and pulp of a tooth by the drill when caries exists, do you consider it necessary to sterilize the cavity thoroughly before filling? Even if you deem it unnecessary, would it not be playing safe to insist that the dentist swab the cavity with alcohol or some other germicide?

S. S. B., Jr., Colorado.

*Answer.*—The assertion that all impacted molars are infected is not substantiated by the majority of investigators. Impacted molars that are completely covered with bone are rarely infected. Impacted molars that are partially erupted are usually infected.

The cavity should be thoroughly sterilized before the filling is placed.

Sixty per cent alcohol is a good germicide if the object to be sterilized is left sufficiently long in the solution. Swabbing a cavity with alcohol is not sufficient to render the cavity sterile. Alcohol is a splendid agent as a solvent of mucin, which is a constant constituent of saliva. It is also a good dehydrant, and is therefore useful in drying cavities.

Various ways of sterilizing cavities in teeth are known to members of the dental profession.

### Sour Taste in the Mouth

*To the Editor:*—Would you please tell me what could cause a sour taste in the mouth at all times, particularly on arising. The patient's teeth, tonsils and stomach are in good condition, but she is nervous from overwork.

M. W., Illinois.

*Answer.*—An unpleasant taste—sour, bitter or otherwise—is usually due to some disturbance of digestion or some abnormality of the teeth, tonsils or other parts about the mouth. Such condition is apt to be more acutely noticed in a nervous or overworked person.

The cause in any particular case can only be determined by a physician who has carefully examined and studied the patient.

### Formula for Infant Feeding; Cancer

*To the Editor:*—1. I have been feeding my 6 months old baby Dryco with boiled water only, and would like to know if you advise the use of the Dextri-Maltose; or is the Dryco a whole food in itself, all that a baby at this age needs? I also give the strained, undiluted juice of one whole orange every day.

2. Is it possible for cancer to be conveyed from one person to another through careless, insanitary habits of the cancerous person?

O. W. S., Florida.

*Answer.*—1. Dextri-Maltose or any other form of sugar may be added to Dryco for infant feeding if a larger amount of carbohydrate is needed than is to be found in the Dryco alone. After from five to six months, plain Dryco can be used just as plain milk is used without the addition of further sugar.

The only safe way in preparing a formula for infant feeding is to have a physician thoroughly familiar with the case prescribe the formula, and to alter it from time to time as the child grows older or to meet special indications. Dryco, properly diluted, differs from fresh milk mainly in the fact that it does not contain as high a percentage of fat as cow's milk.

2. There is no evidence that cancer can be conveyed from one person to another. It is possible to inoculate certain animals with cancer. Practically all the attempts that have been made with human beings have failed.

### Cancer of the Breast

*To the Editor:*—Twenty-one months ago, I was operated on for cancer of the right breast. Ten months ago, mastitis developed in the left breast, which was removed. No malignancy was found. Do you think the trouble in the left breast was caused by that of the other? If this should return what would the symptoms be? My right arm sometimes aches, usually the week before the menstrual period. Occasionally the muscles of the back of my neck ache, and I have a slight stinging sensation near the scar. Should I have taken x-ray treatments?

C. F. M., Missouri.

*Answer.*—Apparently the malignancy had not involved the glands of the axilla, or armpit. These are the cases in which the highest percentages of cures follow surgical treatment. Two years is a little early to rule out all chance of return of the disease. A lapse of three years is required before the patient can be placed in the cured column, and sometimes three years is not enough.

The mastitis of the left breast was probably not in any way dependent on the condition in the right breast. The swelling and tingling of the arm following a radical procedure is not unusual. As a rule this is due to pressure of the scar on the structures of the armpit. The fact that it has occurred in proximity to the menstrual cycle suggests that it is a disturbance of circulation.

This condition is frequently relieved by elevating the arm or by hot packs. Occasionally x-ray treatments will relieve the swelling.

The aching of the muscles of the back of the neck is not significant of a return of the disease, but is probably low grade inflammatory change either of nerves or muscles.

Most authorities advise x-ray treatments following surgery for cancer of the breast. Occasionally postoperative x-ray treatment is not indicated.

Recurrence develops along the line of the scar as nodules and in the axilla as enlarged glands. If anything suspicious is found, the patient should see her physician at once. Recurrence varies from a few months to years (usually three) afterward. A general loss of body tone with loss of weight and strength are the constitutional symptoms. Early recurrences are not always accompanied by pain.

The patient should be examined frequently and regularly by her physician during the first few years.

### Scabies

*To the Editor:*—Would you kindly give us whatever information you can pertaining to scabies, commonly known as crabs. We have had several employees infected, and we should like to know how this parasite is transferred. Could an employee pick this up in a toilet room, or is it necessary for one to have actual contact with bare skin that is so infected.

A. W. S., Pennsylvania.

*Answer.*—Scabies is the technical term for the itch, and crabs is the common term for lice in the pubic hair. The parasites are not in any way related.

The animal causing scabies is microscopic in size, burrows just beneath the skin, and causes fine lines to appear on the webs of the fingers, flexor surfaces of the wrists, the buttocks and on the external genitalia of the male.

The itching, especially at first, is practically limited to the time spent in bed. It is contracted chiefly from bed clothing and clothing worn by infected individuals, but may be contracted in hotels, bath houses and "flops." The disorder is best treated with sulphur preparations.

The term crabs originates from the resemblance of the pubic louse to the crab. This louse, differing in this respect from the body and head louse, has crablike claws with which the shaft of the hair is grasped. The animal can be readily seen with the naked eye with its claws buried in the hair follicle and its feet in the air. The eggs are readily seen as white objects firmly glued to the shaft of the hairs.

Probably in 98 per cent of the cases the lice are acquired during sexual intercourse, but they may be acquired by soldiers in the field, by men sleeping in lodging houses or in other insanitary surroundings, or by wearing infected trousers. It is extremely unlikely that crabs are ever acquired from a toilet seat.

### Colds and Humidity

*To the Editor:*—Our two children, 6 and 2 years old, are susceptible to coughs and colds. In spite of special care as to clothing and diet they were half sick almost all winter. Our physicians advise us that they are receiving almost ideal care. Would a change of residence to a higher altitude or a drier climate be beneficial? We live a few miles from Lake Michigan, and the humidity is usually quite high. Just how much importance can be attached to the subject of relative humidity in the prevention of colds?

A. C. J., Wisconsin.

*Answer.*—In a climate with considerable humidity, especially in one in which the weather changes very suddenly as in the region of the Great Lakes, infections of the nose, nasopharynx and throat are of common occurrence.

In a climate like that of central or southern Arizona, where there is much sunshine with dry, warm, equable weather, the tendency to these infections is much less.

However, such conditions can often be remedied by surgical or other measures. In children, the presence of adenoids or infected tonsils is often responsible for their repeated "colds."

Malnutrition serves as a basis for the lowered resistance that is so often followed by repeated infections. A proper diet should, therefore, be instituted.

The use of cod liver oil in children is often followed by gratifying results; it may be given in doses of one or two teaspoonfuls twice a day. Cod liver oil is exceedingly high in the fat soluble vitamin A, so often lacking in the diet.